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ABSTRACT

This report describes an extension of the Learning Outcomes Study (a nationwide longitudinal investigation of 1,010 students just entering programs for gifted learners in grades 2 and 3) to investigate excellence within each of the four program types considered: within-class programs, pull-out programs, separate classes, and special schools. The qualitative extension focused on an "exemplary" model from each of the program types. Two program evaluation tools, the Program Profile Form and Program Satisfaction Survey (with versions for students, parents, teachers, and administrators), were created to document key program components. Program profiles included a description of each program's setting and general procedures (identification process, curricular options, staff selection, school demographics) and five criteria: leadership, atmosphere and environment, communication, curriculum and instruction, and attention to student needs. In addition, ways that all selected programs addressed the needs of diverse populations of students were addressed. Appendices provide additional information on program demographic information, program profiles, the interview questions used, the program satisfaction surveys, and other research aspects of the study. Executive Summary is also published separately. (Contains approximately 95 references.) (DB)

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Qualitative Extension of the Learning Outcomes Study

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The University of Virginia
Charlottesville, Virginia

November 1994
Research Monograph 94110

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THE NATIONAL RESEARCH CENTER ON THE GIFTED AND TALENTED

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Qualitative Extension of the Learning Outcomes Study

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ABSTRACT

The Learning Outcomes Study was a nationwide longitudinal investigation of 1,010 elementary school children who had just entered programs for gifted learners in grades 2 and 3 when the study began. The primary purpose of the project was to assess student changes during their first two years across four types of program arrangements: Within-Class programs, Pull-Out programs, Separate Classes, and Special Schools. These types of programs were selected because they are the most frequently used classroom arrangements nationwide (Gallagher, Weiss, Oglesby, & Thomas, 1983). The Learning Outcomes Study was extended by adding a qualitative dimension focusing on an "exemplary" model from each of the four program types. These programs were identified and studied with the intention of providing educators and policy makers with valuable information on how these programs were perceived and implemented. This study was not intended to determine whether one type of program was better than another, but rather to fully comprehend the prevailing circumstances that influence the impact of a certain type of programming arrangement in a given community.

The purposes of the qualitative study were threefold: (a) to formulate a system for selecting "exemplary" program models; (b) to further contribute to the knowledge base of gifted education by conducting in-depth examinations of outstanding elementary school gifted programs; (c) to examine ways in which outstanding programs address the needs of students from diverse cultures. All three objectives were fulfilled. Through the program selection process, two evaluation tools were created, the Program Profile Form and a set of Program Satisfaction Surveys. The forms are useful for documenting the key components of a program. They can be used to design a model or to compare several programs. Four versions of the Program Satisfaction Survey were created for students, parents, teachers, and administrators. They contain parallel items which enable an evaluator to compare responses across similar concepts.

The proposed benefits of this project also included a profile of four types of programming models commonly employed in gifted education, and specific criteria for assessing program models. In addition to descriptions of each program's setting and general procedures (identification process, curricular options, staff selection, school demographics), program profiles included the following five criteria: leadership, atmosphere and environment, communication, curriculum and instruction, and attention to student needs. All selected programs addressed the needs of diverse populations of students in three different ways. First, all selected programs focused on the identification of underrepresented populations of students in their written policies. Second, by focusing on the individual needs of all students, teachers took into consideration specific characteristics related to children from traditionally underserved populations. Third, teachers and administrators stressed parental and community partnerships with schools, thus encouraging families to become involved with the education of their children.

Qualitative Extension of the Learning Outcomes Study

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EXECUTIVE SUMMARY

The Learning Outcomes Study was a nationwide longitudinal investigation of 1,010 elementary school children who had just entered programs for gifted learners in grades 2 and 3 as the study began (Delcourt, Loyd, Cornell, & Goldberg, in press). The primary purpose of the Learning Outcomes Study was to assess cognitive and affective outcomes of students during their first two years in one of four types of program arrangements: Within-Class, Pull-Out, Separate Class, and Special School. These types of programs were selected because they are the most frequently used classroom arrangements nationwide (Gallagher, Weiss, Oglesby, & Thomas, 1983). The Learning Outcomes Study was extended by adding a qualitative dimension focusing on an "exemplary" model from each of the four program types.

Statement of the Problem

In numerous phone contacts with Collaborative School District (CSD) coordinators, inquiries about the Learning Outcomes Study included questions pertaining to the study's results: How will this project help our district? What happens if the type of program already employed in our district does not have positive outcomes? Will the results indicate that some program types have more favorable outcomes than others? Are the results fair when only certain variables were included in the initial study (e.g., achievement, attitudes toward learning, self-perception, motivation)? Will the variety of reasons for selecting and implementing a specific type of program be reflected in the report of the study? How will the quality of programs selected affect the results? What types of programs promote the inclusion of students from diverse backgrounds?

Additional discussion among investigators at The National Research Center on the Gifted and Talented and other researchers in the field of gifted and talented education resulted in the recommendation to obtain evidence of an "exemplary" program in each of the four settings and to provide data illustrating the characteristics that make these quality programs. This form of information would be useful to both practitioners and theorists since it could serve as a guide for professionals as they seek to evaluate specific types of programs.

Purpose of the Study and Major Research Questions

No consensus exists in the literature about the most appropriate delivery system for gifted and talented students (Cox, Daniel, & Boston, 1985; Nash, 1984). In fact, when learning outcomes were compared across four program types (Special School program, Separate Class program, Pull-Out program, Within-Class program), no single programming arrangement fully addressed all the cognitive and affective needs of students

(Delcourt et al., in press). The purposes of this study were threefold: (a) to formulate a system for selecting "exemplary" program models; (b) to further contribute to the knowledge base of gifted education by conducting in-depth examinations of outstanding elementary school gifted programs; (c) to examine ways in which outstanding programs address the needs of students from diverse cultures. Four programs were identified and studied with the intention of providing educators and policy makers with in-depth profiles of successful program implementation.

This project addressed four major research questions: (a) What characterizes a program identified as an "exemplary" model of a given type (Pull-Out, Within-Class, Separate Class, Special School)? For the purposes of this study, characterization as an "exemplary" program was based on the program's ability to serve traditionally underserved populations of students since this was a priority of the grant funding agency, the Office of Educational Research and Improvement, U.S. Department of Education. (b) Which key variables are consistent across "exemplary" models of all four program types? (c) What are the influences of such "exemplary" programs on student achievement and motivation? (d) What distinguishes the "exemplary" representative model in terms of its ability to serve diverse populations of students?

Significance

There is no consensus in theory or in practice, regarding the most appropriate delivery system for gifted and talented students. In fact, there is common acceptance that the quality and success of each program option vary greatly. Hence the National Research Center Advisory Council (NRCAC), an advisory group for The National Research Center on the Gifted and Talented (NRC/GT), gave high priority to the examination of various types of programs for gifted elementary school students (See Table 1). In response, this study was structured to add to the knowledge base of gifted education by conducting in-depth examinations of outstanding elementary school gifted programs. Its purpose was not to judge or evaluate one model against another, but rather, to investigate excellence within each program type. One outstanding program identified in the Learning Outcomes Study was selected from each of the four program types: Within-Class, Pull-Out, Separate Class, and Special School. All selected programs were subjected to a case study investigation of practices and contexts that promoted success.

Table 1

Meeting the Priorities of the Needs Assessment and the Priorities of the National Research Center Advisory Council

	Priority of NRCAC	Priority of Learning Outcomes Study Extension (direct-N/A[a])
1.	Longitudinal assessment of the impact of gifted programs on student outcomes	direct
2.	Regular curriculum modifications	direct
3.	Teacher training/staff development necessary for curriculum modification or development	direct
4.	Grouping patterns and impact on learning outcomes	direct
5.	Instructional approaches to education	direct
6.	Motivation	direct
7.	Effectiveness of differentiated programs for economically disadvantaged, underachieving and other special populations	direct
8. a	Self efficacy	direct
8. b	Cultural/Community reinforcement	direct
10.	Policy implications	N/A
11. a	Teachers as assessors	N/A
11. b	Grouping by special populations	direct
13.	Program options in relation to student characteristics, settings, training, articulation	direct
14.	Process vs. content	N/A
15.	Use of research in assessment	N/A
16.	Impact understanding of gifted/talented "differences"	N/A
17.	Effects of grouping on all students when gifted are grouped	N/A
18.	Assumptions/stereotypes of underachievement	N/A
19.	Student characteristics associated with success	direct
20.	Cooperative learning	N/A
21.	Relations between community and program	direct

Note: Items #9 and #12 are referred to as #8.b and #11.b, respectively.

[a] N/A means that the item does not apply to the focus of the present study.

Related Literature

General Program Components in Gifted Education

An analysis of all journals in gifted education published between 1957 and 1989 revealed that program development was a primary topic for articles over these last three and a half decades, with curriculum and instruction most often the focus in these publications (Hays, 1993). Despite the literature emphasis on program development, program designs created by local school boards are still highly variable or altogether nonexistent, making it rather difficult to compare one program description with another. This is largely due to local and state policies for gifted education. Some states require that school districts complete and submit for approval a prespecified plan for the identification and education of their gifted students (Passow & Rudnitski, 1993), while other states offer no mandates for gifted education (14 states) or let alone mention gifted students in their educational policies (2 states) (Coleman & Gallagher, 1992). Passow and Rudnitski (1993) conducted a study of state policies regarding the education of gifted learners. They received documents from 49 of the 50 states which they analyzed based on 13 factors:

1. State Mandated Services
2. District Plans for the Gifted
3. Gifted Education as Part of Special Education
4. Philosophy or Rationale
5. Definitions of the Gifted and Talented
6. Identification Procedures
7. Programs for the Gifted and Talented
8. Differentiated Curriculum and Instruction
9. Counseling and Other Support Services
10. Parental Involvement
11. Teacher Education and Certification
12. Program Evaluation
13. Funding for the Gifted

Whether mandated or not, these state-level factors are included in comprehensive local program plans which tend to include the following general components:

1. Needs Assessment
2. Staff Education
3. Philosophy, Rationale, Goals, Objectives, and a Written Program Plan
4. Types of Gifts and Talents to be Provided for and Estimated Enrollment
5. Identification Methods and Specific Criteria
6. Specific Provisions for Identifying Female, Underachieving, Handicapped, Culturally [Diverse], and Economically Disadvantaged Students
7. Staff Responsibilities and Assignments
8. Arranging Support Services
9. Acceleration and Enrichment Plans
0. Organizational and Administrative Design
11. Transportation Needs
12. Community Resources: Professionals and Organizations
13. In-Service Workshops, Training, and Visits
14. Budgetary Needs and Allocations
15. Program Evaluation

(Davis & Rimm, 1985, p. 41)

These key components are applicable to all types of programs such as special schools for gifted learners, resource room programs, separate classrooms, and programs using heterogeneous grouping in the regular classroom. Furthermore, all programs should be described in terms of these features, at the very least, in order to promote an adequate conception of the program (Gallagher, 1985). In the 1985 Richardson study of able learners conducted in the United States (Cox, Daniel, & Boston, 1985), a written document of program goals and procedures was considered important enough to become one criterion for categorizing a district as offering a "substantial" program . Unfortunately, a discrepancy sometimes exists between the written description of the program and its actual implementation. Refer to Hunsaker (1991) for a detailed description of this discrepancy as it applied to a sample of identification systems for gifted and talented students.

Consequently, a basic criterion of an "exemplary" program should be a set of clearly stated goals, objectives, identification procedures, curriculum plans, evaluation strategies, administrative procedures, and provisions for students from underrepresented populations, all being consistent with the philosophy of the program. While the presence of a written plan does not ensure that a program will be successful, it nevertheless provides evidence of a necessary structure for implementing an effective program model.

Characteristics of Successful Schools and Programs

Themes such as the five which are described in this study are to be found in any "exemplary" school program. Literature about successful schools and school reform often consider the themes that emerged from this study: leadership (Simmons & Resnick, 1993), learning environment (Clark & Astuto, 1994; David, 1991), communication with families (Comer, 1991; Vandergrift & Greene, 1992), curriculum and instruction (Joyce, 1991), and attention to the individual needs of students (David, 1991). What makes the school programs in this study different from those considered in the general literature is the focus on a specific population of students, those with high ability. School personnel who focus on a particular population such as the gifted consider in great detail the characteristics and needs of these children when selecting staff and implementing the curriculum.

After analyzing characteristics of gifted programs, Reis and Renzulli (1984) presented a list of key features of successful programs for gifted and talented students:

1. The Golden Rule: Provide a Thorough Understanding of the Model
2. Planning Prior to Program Implementation
3. Inservice and Administrative Support
4. Establishment of a Planning Team
5. Program Ownership
6. Student Orientation
7. Communication with Prime Interest Groups
8. Flexibility
9. Evaluation and Program Monitoring

Although their list was originally formulated based on programs using the Enrichment Triad Model (Renzulli, 1977), these points can be used as guidelines for developing and monitoring any program type. This information should be coupled with empirical data about practices in gifted education. Shore, Cornell, Robinson, and Ward (1991) reviewed 100 recommended practices in the following areas: advocacy and administration, identification and assessment, curricular and program policies, advice to educators, advice to parents, advice to professionals, social and emotional adjustment, and special groups of gifted children. Each recommended practice for the gifted and talented includes a definition of the concepts pertaining to the particular practice, a description of

current knowledge in the field, implications for action, and areas of needed research. According to Shore et al. (1991), 9 of the 24 recommended practices related to differentiating the curriculum for the gifted are "strongly supported" (p. 279) or have "some support" (p. 280) from research-based studies. Unfortunately, 34 recommended practices across all categories were found to have "insufficient research to make a judgment about support" (p. 283). This means that programs for the gifted are making a positive impact on gifted students, but many common practices and assumptions prevalent in gifted education require additional investigation.

Procedures

Sample

The Learning Outcomes Study included 11 school districts representing 4 types of programs for the gifted. Research sites included 3 special schools, 3 Separate Class programs, 4 Pull-Out programs, and 4 Within-Class programs (two school districts supplied more than one program type). One "exemplary" program was selected from each category, using the following five-step hierarchical process: (a) all districts were contacted to inquire whether or not school personnel would be able to participate in a follow-up research project (see Appendix A for demographic information.); (b) from the pool of districts willing to participate in an additional project, each program's documentation was examined for the completeness of the goals, objectives, program identification procedures, curricular plans, evaluation strategies, provisions for students from culturally diverse and economically disadvantaged backgrounds, and consistency among all of these factors (see Appendix B for all completed Program Profiles); (c) students' scores were assessed across academic and affective learning outcomes (achievement, self-perception, and self-motivation); (d) questionnaires about program satisfaction were sent to program coordinators and a purposeful sample of administrators, teachers, parents, and students; (e) in an hierarchical manner, the data from steps a, b, c, and d were compared to select one program in each type of strategy, searching for the best example of an internally consistent program with positive student outcomes.

Four districts were selected using this process. Students from the Special School were homogeneously grouped on a full-time basis in a building designated for the gifted and talented. This district is located in an urban area in the Northern central section of the country. Students in the Separate Class program were from a rural community in the Southwest. They received their instruction in homogeneous groups for all content-area courses and were housed in schools with students not identified as gifted and talented. Participants representing the Pull-Out program attended a resource room for two hours each week with curriculum based on interdisciplinary units and independent study. This rural town was located in the Southeast. Students from the Within-Class program attended heterogeneously grouped classes 100% of the time where differentiation of the curriculum was achieved using cluster grouping, independent study, as well as creative and affective enrichment activities. All programs had goals pertaining to both academic and affective outcomes. Their instructional techniques were tailored to the needs of high ability learners. A more detailed account of each program's demographic features can be found in Appendix A. All curricular options are listed in Appendix B.

All districts required that teachers have specialized training in the characteristics and needs of gifted learners and encourage their staff to complete graduate courses on topics such as creativity, characteristics of the gifted, and thinking skills. All districts stated that

they provide ongoing staff development for teachers who work in their programs for gifted students.

Design

In order to overcome the weaknesses and biases that might prevail in a multiple case study design, all analyses emphasized triangulation of data methods and sources. This technique provided checks for both reliability and validity of collected data. Sources and methods of collecting data are listed below.

1. Source - the school
   Methods - document analysis of gifted program policies and procedures
2. Source - the student
   Methods - semi-structured interview schedule, tape-recorded and transcribed; observation of selected students
3. Source - the parent
   Methods - semi-structured phone interview schedule
4. Source - the teacher
   Methods - observation of classroom practices; semi-structured interview schedule, tape-recorded and transcribed

Data Collection

Documents describing each school district's gifted program were requested by mail approximately five months prior to visiting each site. Over a three-day period, on-site observations of classroom activities took place using the Classroom Practices Record (CPR) (Westberg, Dobyns, & Archambault, 1990). This instrument was used to collect information about "the differentiated instruction that gifted and talented students receive through modifications in curricular activities, materials, and verbal interactions between teachers and students" (Westberg, Dobyns, & Archambault, 1990, p. 1). This assessment tool contains six sections: Identification Information, Physical Environment Inventory, Curricular Activities, Verbal Interactions, Teacher Interview Record, and Daily Summary. Additionally, interviews were conducted with teachers and randomly selected students and their parents. Participants were asked to describe the program and its impact on students. Refer to Appendix C for a list of questions used during interviews. To ensure consistency, all data were collected by the same individual, the principal investigator of this project.

Analysis

The analysis of the data proceeded with the formation of case records (Patton, 1980). The unit of analysis per record was the program. Within each record, information gathered from programs, observations, and interview data underwent content analysis in a search for patterns and themes (Spradley, 1979). In order to investigate the consistency of responses, all data were triangulated (Mitchell, 1986). The technique of triangulation provides checks for both reliability and validity of data since the researcher can compare responses from multiple sources (i.e., parents, teachers, and students) using a variety of data collection methods (i.e., documents, observations and interviews) (Smith, 1975). For example, when a school had a written objective to improve parental involvement in the gifted program, triangulation was used to understand how school staff encouraged this involvement. At the Special School, this information was verified in two ways. First, parental involvement in the school's lunchtime activity period was observed. Second, parents commented about their support of and involvement with their child's education during phone interviews. Following the analysis of all records individually, they were compared and contrasted as regards patterns, themes, and categories (Miles & Huberman,

1984; Swanson-Kauffman, 1986). Conclusions were related to the existing literature on programs for the gifted and talented. In addition, a cross-validation technique was used to verify data coding, conclusions, and recommendations. An evaluator, knowledgeable in the areas of programs for the gifted and evaluation, reviewed and critiqued the researcher's findings.

Results

Research Question #1: What characterizes a program identified as an "exemplary" model of a given type (Pull-Out, Within-Class, Separate Class, Special School)?

Four districts have been identified as "exemplary" school programs in gifted education. The Special School is located in an urban area in the Northern central section of the country. Its students are homogeneously grouped on a full-time basis in a building designated for the gifted and talented. Students in the Separate Class program are from a rural community in the Southwest. They receive their instruction in homogeneous groups for all content-area courses and are housed in schools with students not identified as gifted and talented. The Pull-Out program is implemented in a rural town of the Southeast. Its participants attend a resource room for two hours each week with curriculum based on interdisciplinary units and independent study. Located in the Northern central section of the country, students from the Within-Class program attend heterogeneously grouped classes 100% of the time. Differentiation of the curriculum is achieved using cluster grouping, independent study, as well as creative and affective enrichment activities. All programs have goals pertaining to both academic and affective outcomes. Their instructional techniques are tailored to the needs of high ability learners. A more detailed account of each program's demographic features can be found in Appendix A. All curricular options are listed in Appendix B.

Each district requires that teachers have specialized training in the characteristics and needs of gifted learners and encourages their staff to complete graduate courses on topics such as creativity, characteristics of the gifted, and thinking skills. All districts state that they provide ongoing staff development for teachers who work in their programs for gifted students.

For the Special School, addressing the needs of students from diverse cultural and economic settings is a clear priority. Its teachers believe that in order to work effectively with students, they must be well acquainted with them and adapt the curriculum accordingly. Indeed, there may be as many as five instructional levels per class, making it paramount for teachers to adjust the curriculum to their students' needs. The administration and the faculty feel that an enriched educational program expands the knowledge of students in preparation for their future academic and career choices. This program is made possible because of the impressive commitment of all staff members to the philosophy of the school. It is the very ingenuity and creativity of administration and faculty which create an obviously exciting educational environment. However, this stimulating environment also makes staff reluctant to leave the school, creating a low faculty turnover rate. This could be seen as a negative aspect, a hindrance to faculty interactions with other teachers. The instructors also report that they are somewhat disturbed by the public's perception of their job as easy because they teach in a school for gifted students. School personnel try to convey to the public their pride in the program they have developed and maintained for a very diverse group of students.

The Separate Class program is located in a small community whose members promote traditional values for their children. They are concerned about how well the students learn basic skills and they want them to obtain at least a high school education. The program for the gifted and talented serves to expand the regular school curriculum by offering a Separate Classroom program with an enriched curriculum presented at a moderate pace. The teachers explained that it was a challenge for them to incorporate the objectives for the gifted and talented program into the framework of the required skills and testing procedures of the regular curriculum. All teachers used texts adopted by the school district for their grade levels, and competency tests in reading, writing, and mathematics are given every quarter. The results of these tests are used by the teachers to adjust their instruction based on student strengths and weaknesses. The academic staff are accountable for attaining specific standards with the entire class. The G/T teachers reported that most students do very well on the tests. However, this form of evaluation caused concern among the faculty about the pacing of their instruction in order to match the exams. They wanted to ensure that their students learned and reviewed the skills being tested, but they also wanted to supply an enriched curriculum that motivated the class.

The Pull-Out program provides students with advanced level concepts through a part-time resource room format. The activities of the Talented and Gifted (TAG) classes are presented at a faster pace than for those of the regular curriculum. The contents of both classes are occasionally integrated. All classroom environments are student-centered, providing individual, small group, and large group instruction. All teachers (TAG and regular classroom) enthusiastically promote a child-centered approach and strive to provide their high ability students with a differentiated curriculum that is an integral part of the school program. Some instructors do not feel sufficiently informed about the content of the gifted program, but they strongly agree with the philosophy of educating gifted students in a resource room program. The TAG teachers are itinerant. Each elementary level teacher is assigned two grade levels across three schools. Instructional facilities available to TAG teachers in this district vary from school to school. In one building, an instructor may enjoy a well-equipped classroom as vacated by an art class once a week, and in another situation be assigned to conduct classes behind the stage curtains in the auditorium.

The grouping arrangement used in this Within-Class program is based on clustering students identified as gifted and talented in two classes per grade level. Approximately one third of a class are G/T students and the remainder are above average in ability. The curriculum operates at a faster pace than that of the regular school program. Based on a Schoolwide Modified Enrichment Triad Model, this program offers enrichment opportunities across all subject areas. Teachers also promote collaborative learning through shared decision-making. Parental involvement is actively sought in order to establish a strong link between the school and the community. Unfortunately, teacher efforts at encouraging parent participation in the school have not met the expectations of the program administrator.

Research Question #2: What are the key variables consistent across all four program types?

An examination of the five themes (leadership, atmosphere and environment, communication, curriculum and instruction, and attention to student needs) revealed that there are consistencies across all programs, leading to recommendations for program development and implementation.

Leadership. In an "exemplary" model, there is a strong administrative voice to represent and implement the program for gifted learners. This individual oversees the

development of long-term goals and objectives and communicates this information to everyone in the school community. Such leaders ensure that staff and community members fully understand and support their program.

Atmosphere and Environment. An accepting atmosphere throughout the school promotes a positive attitude toward the program for the gifted and talented for all who are involved, e.g., students, parents, teachers, and administrators. In these programs, students are comfortable with their educational and social environments. Staff members are given the time, materials, and training to address and meet the needs of gifted learners.

Communication. Clear and frequent communication is maintained between parents, teachers, students, and administrators regarding the program. This is accomplished through both general strategies (i.e., newsletters) and individual contacts (i.e., phone calls). These communications include information about program activities and provide commendations as well as recommendations about student performance.

Curriculum and Instruction. Teachers are flexible in matching both curriculum and instruction to student needs. They employ a variety of instructional techniques to complement student characteristics. As a result, the students feel that they are appropriately challenged. For example, there is a great endeavor to match the pacing of the curriculum with the student's ability in a given subject.

Attention to Student Needs. Academic staff and administrators are committed to serving students from traditionally underrepresented populations. They take assertive roles in selecting these students for their programs. Staff are also sensitive to the needs of these students once they enter the programs.

Such factors are to be found in any "exemplary" school program. Literature about successful schools and school reform often consider such themes as leadership (Simmons & Resnick, 1993), learning environment (Clark & Astuto, 1994), communication with families (Comer, 1991; Vandergrift & Greene, 1992), curriculum and instruction (Joyce, 1991), and attention to the individual needs of students (David, 1991). What makes the school programs in this study different from those considered in the general literature is the focus on a specific population of students, those with high ability.

Research Question #3: What are the influences of such "exemplary" programs on student achievement and motivation?

Parents, teachers, and students agree that two influences on student achievement and motivation involve exposure to challenges and choices. Challenges are provided through high level content and pacing of the curriculum. Techniques such as curriculum compacting are used to present topics at an appropriate, more advanced level. One teacher in a Special School program said, "the grouping itself is a motivator since students can progress at a fast pace and they can work with each other to succeed." Corroborating this remark, a parent at the same school noted that her daughter. . . likes the fact that she is in a class with other students who are on the same level." A parent whose child attends a cluster class for a Within-Class program said that she can see the improvement in her daughter's motivation since she started the program. This parent noted, "It's not the same old curriculum all of the time. . . . I've noticed [my daughter] write more and more stories. . . . The program improves her study habits. It lets her explore."

Students feel they are motivated when they are challenged, as a fourth grade teacher explains,

> We had an interesting discussion yesterday. It came up during math class where the kids were talking about. . . looking forward to finishing [a new math book] and going on to some more advanced topics which I have told them we'll be working on. They talked about how they enjoyed math this year and how boring it had been in the past. And then their discussion generalized to their classrooms. . . before they came here. They said that very often work was really easy and there was nothing for them to do and they felt different from the rest of the class because they could do it really easily and then there was nothing.

His opinion after 24 years of teaching students with a wide range of ability levels is that when they enjoy what they are doing and are rewarded for doing well, they will be successful.

Becoming self-motivated to achieve is easier for some students than for others. To assist with this goal, teachers also provide many opportunities for students to make their own choices and to gain control over their learning environment. This conclusion was also presented by Ireland, Clegg, Sankar, Kathnelson and Gray (1993) in a study of student perceptions and instructional practices in programs for the gifted.

Research Question #4: What distinguishes the "exemplary" representative model in terms of its ability to serve diverse populations of students?

These "exemplary" models in gifted education addressed the needs of diverse populations of students in three main ways. First, all selected programs focused on the identification of underrepresented populations of students in their written policies. Specific populations included those from diverse cultural groups, the physically challenged, those with limited English proficiency (LEP), underachievers, and the economically disadvantaged. They took assertive roles for selecting these students for their programs through the standards they set for student identification. Programs either did not have strict cutoff scores in their procedures (Special School and Within-Class) or when they had cutoff scores, they included qualifying statements (Separate Class and Pull-Out) such as the following: "A student that does not meet one of the stated requirements may be considered by the selection committee if adequate justification is presented by the nominating party." The absence of strict cutoff scores allows students who do not do well on standardized tests a greater latitude when being considered for participation in a program.

Second, by focusing on the individual needs of all students, teachers took into consideration specific characteristics related to these diverse populations of students. These characteristics included the use of non-standard English and limited educational experience. As one teacher remarked,

> . . . . You have to look at each person individually and each person's background. . . . It's just a matter of respecting kids first of all, and working with them. If you don't understand the language they use, if you don't understand their daily experiences and what things they are familiar with and not familiar with, you can't work with them effectively.

Addressing their characteristics means adjusting the pace of the curriculum to the student's rate of learning and providing the child with many new experiences.

Third, parental and community involvement are seen as vital to the success of the program and to each child's education. This home-school partnership is highly valued, as can be seen in one district's message to the family,". . . parents who are involved in their children's classroom have a positive effect upon the motivation of the children to succeed in

school." How do parents and community members become involved in the school? They work in such capacities as mentors, class assistants, and special presenters. To establish these patterns of involvement, district coordinators invite parents to school events, distribute questionnaires about potential family interactions with the school, and keep parents informed about their child's educational program. These interactions communicate to parents that they can actively contribute to the education of their child as well as provide opportunities for children to observe appropriate adult role models.

Recommendations

This section provides parents and educators with a series of questions they should ask about any program for the gifted and talented if they are to gather information on program practices. Each set of questions is followed by comments in order to guide decision-makers in creating or improving their own programs for gifted learners.

What Should Parents and Educators Ask About Their Elementary School Gifted Programs?

Leadership

Who among the school district's administration is an advocate for this program within the school system and the community? Successful programs are characterized by at least one strong voice. Supportive teachers and parents have a crucial role, yet they are often not as influential as a school administrator in representing the program to other administrators, school personnel, and community members. This individual may be a specially trained coordinator for the gifted and talented, a superintendent or associate superintendent of the school district, a principal or assistant principal or another type of administrator. As noted in a review of practices in gifted education, the coordinator does not automatically need to serve on a full-time basis (Shore, Cornell, Robinson, & Ward, 1991).

How supportive of gifted education is this administrator? He or she should be a strong advocate of gifted education, able to effectively represent the needs and characteristics of gifted and talented students to the community at large and to key groups of decision makers within the school district.

How long has the program been in existence? What type or types of programs are being implemented in the district (Special School, Separate Classroom, Pull-Out program, Within-Class program, other)? How long have these programs been operational? If the program type has changed over time (e.g., a Pull-Out program that becomes a Within-Class program), why did this occur? One indicator of an effective program is not necessarily the number of years it has been in existence, but the effort made by the administration to turn the program into the most appropriate model for meeting the needs of the students. A program that has changed its focus by changing the format and activities offered to students may either be indicative of a staff that wants change for the sake of change, or one that is attentive to the needs of its clients. Investigators should ask why the change occurred, how the need for change was determined, and how the changes are being monitored. The most effective programs have a comprehensive evaluation design in place (Tomlinson & Callahan, 1993). A copy of the program description including the evaluation plan should be available to the public. Appendix B of this chapter provides a format for listing the key features of a program profile.

What are the decision-making processes for implementing and revising the program? A program administrator should be able to explain the processes in detail. This includes teacher selection, program development, student identification, curriculum implementation, and program evaluation. Parents and teachers should be involved in planning activities related to the program in order to promote ownership among staff and community members (Reis, 1983).

What types of teacher training or staff development are provided in your district? Are these optional or required? Staff development regarding the needs of gifted and talented students should be a requirement for *all* faculty members. Additional training should be provided to staff working directly with the targeted students throughout the school such as in the regular classroom or the library.

How are staff members selected to teach in this program? Are there state or local guidelines? Is certification required for teachers of the gifted and talented? Guidelines for teacher preparation at the state or local levels make it easier for districts to select qualified personnel (Gallagher, Weiss, Oglesby, & Thomas, 1983). Teachers should be selected according to their knowledge of the curriculum, their experience in addressing the needs of high ability learners, and their interest in working with this type of exceptional student (Passow & Rudnitski, 1993). The extent of the training considered acceptable to produce qualified personnel varies from the completion of a few core courses in the education of G/T learners to that of a Master's degree in the educational psychology of the gifted and talented. Some form of theoretical and practical experience is recommended prior to working with such students. "Exemplary" teachers report that they are involved in ongoing educational training through their school staff development programs and through their own initiative.

Atmosphere and Environment

What kind of classroom atmosphere is developed? The notion of "atmosphere" encompasses the entire school environment. An inviting environment promotes a positive attitude toward the school and the program for parents, teachers, students, and administrators. This is not accidental. Staff members need to be given the time, materials, and instruction to create an integrated school atmosphere. For example, in order to promote learning as an ongoing activity, role models from the community could share their interests and talents with students. Teachers also set the tone for the perception of the gifted children by their peers. They specifically avoid labeling a child and provide them with differentiated activities as they would with any child in their classes.

What impressions and concerns do parents, teachers, students, and administrators have about the program? A random selection of these individuals should reveal positive attitudes toward the program (Delcourt & McIntire, 1993; Feldhusen & Sayler, 1990). All staff members, students, and parents should be informed about the program and should also feel that they can always obtain additional information whenever necessary. The program should not be viewed as a luxury, which receives support only when there is extra money in the budget. This means that teachers of the gifted and talented should have the appropriate materials and facilities to implement their curriculum.

Communication

To what degree are staff members involved with the program (principal, librarian, school psychologist, fine arts teacher, etc.)? All staff members should be well informed about the program and receive training in the characteristics and needs of gifted and talented students (Reis & Renzulli, 1984). This information should be deemed as important as that

concerning the needs of any exceptional child. School personnel should also be involved in program planning whenever their expertise is required. They can serve on student identification committees and contribute to curriculum planning. For example, the librarian can provide valuable information by training the students in advanced reference skills, a lesson on map-making can be coordinated with the fine arts teacher, and an advanced science class about the effects of exercise on the body can be taught in conjunction with the school nurse or a local physician.

How do teachers communicate with each other about the program? What type of communication is established between the parents and the school? Clear and frequent communication between all members of the program (parents, teachers, students, administrators) must be maintained. General communication systems (newsletters, progress reports, large group meetings) and individual contacts (phone calls, conferences) should be employed. Communication with parents should include commendations as well as recommendations. This is especially important to those parents who often receive information from the school only when a child has done something wrong.

Curriculum and Instruction

What are the needs of the high ability students classroom? How are these needs addressed? How is that process different from addressing the needs of other students in the class or school? Which particular strategies are used? Gifted and talented students have specific characteristics and needs which require the implementation of educational strategies that are different from those concerning their same-age peers. The teachers who work with these students recognize these characteristics and are experienced in providing differentiated curricular activities. For example, an ability to process information more quickly indicates that a child needs less time and fewer repetitions to understand concepts. Indeed, a student so identified may have mastered content prior to its being formally introduced in the classroom. Teachers of the gifted and talented find it an absolute necessity to make changes in the content and pacing of the curriculum in order to appropriately challenge students and to make the most effective use of everyone's time.

Which educational model has been chosen for implementation in the school and classroom? How is this achieved in the school? In the classroom? How does this model influence teaching practices? How does the use of this model differ from the curriculum and instruction used in a classroom not employing this model? Many programs for the gifted and talented are based on educational systems and models that incorporate content, strategies, and administrative designs developed specifically for high ability learners. These models should provide programs that are clearly different from the regular curriculum. The differences should not be seen as special privileges for the gifted and talented, but as appropriate educational decisions.

What influence does this program (e.g., Special School, Separate Class, Pull-Out, Within-Class) have on student achievement, motivation, self-concept, and creativity? Programs should focus on both cognitive and affective outcomes for students (Shore et al., 1991). Achievement, motivation, self-concept, and creativity are some of the key elements included in goals, objectives, and the evaluation plan.

What type of evaluation procedures are used in this particular program? All programs should have explicit procedures for evaluating student progress. The evaluation design should be directly related to the program goals and objectives (Hunsaker & Callahan, 1993; Tomlinson, Bland, & Moon, 1993).

What do you think it takes to be an effective teacher in this program? All teachers agree that the most important teaching quality is flexibility. This means that they are aware of the many ways their students view and approach specific challenges in the classroom. Flexibility also means that teachers need to plan curricular activities that fully address the abilities of their students and are integrated in the short-term and long-range educational plans of the school district. For instance, specific learning outcomes determined by the state and local school boards may be achieved at a faster pace, thereby creating the need for alternative curricular approaches such as acceleration and enrichment. Highly creative students require a variety of outlets for their talents (e.g., art, music, dance, humor) and, of course, time for thinking.

Attention to Student Needs

How do you address the needs of students from culturally diverse and economically disadvantaged backgrounds? These particular groups have been noticeably absent from many programs for the gifted and talented. In order to remedy this situation, identification procedures and program activities must focus on the unique characteristics of individuals from diverse cultural groups. Whether a school district has one dominant racial/ethnic group such as African-American or Hispanic students or a number of subgroups represented in its population, the program for the gifted and talented should have a plan to actively recruit these students and to provide activities to address their specific needs.

How are individual expression and creativity viewed? How do students express their interests? What is the focus of the program with respect to a student's affective needs? How are the children challenged within the program? How is this ascertained? What is the philosophy concerning student learning styles? Teachers should incorporate their students' interests into each subject. The children should be encouraged to express their ideas and to expand their thinking. Since they reported that they were most comfortable when their educational *and* social environments were positive, they should be given opportunities to feel challenged by academic rigor and to develop friendships with peers who share interests similar to theirs.

By referring to these five themes and related questions, one will gather a significant amount of information about any program for the gifted and talented. Responses to the questions can then be organized on a program profile form such as that in Appendix B. Of course, the program profile form can be revised to accommodate additional topics.

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The Qualitative Extension of the Learning Outcomes Study

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Chapter 1: Introduction and Overview of the Study

The Learning Outcomes Study was a nationwide longitudinal investigation of 1,010 elementary school children who had just entered programs for gifted learners in grades 2 and 3 as the project began (Delcourt, Loyd, Cornell, & Goldberg, in press). The primary purpose of the Learning Outcomes Study was to assess cognitive and affective outcomes of students during their first two years in one of four types of program arrangements: Within-Class, Pull-Out, Separate Class, and Special School. These types of programs were selected because they are the most frequently used classroom arrangements nationwide (Gallagher, Weiss, Oglesby, & Thomas, 1983). The Learning Outcomes Study was extended by adding a qualitative dimension focusing on an "exemplary" model from each of the four program types.

Statement of the Problem

In numerous phone contacts with Collaborative School District (CSD) coordinators, inquiries about the Learning Outcomes Study included questions pertaining to the study's results: How will this project help our district? What happens if the type of program already employed in our district does not have positive outcomes? Will the results indicate that some program types have more favorable outcomes than others? Are the results fair when only certain variables were included in the initial study (e.g., achievement, attitudes toward learning, self-perception, motivation)? Will the variety of reasons for selecting and implementing a specific type of program be reflected in the report of the study? How will the quality of programs selected affect the results? What types of programs promote the inclusion of students from diverse backgrounds?

Additional discussion among investigators at The National Research Center on the Gifted and Talented and other researchers in the field of gifted and talented education resulted in the recommendation to obtain evidence of an "exemplary" program in each of the four settings and to provide data illustrating the characteristics that make these quality programs. This form of information would be useful to both practitioners and theorists since it could serve as a guide for professionals as they seek to evaluate specific types of programs.

Purpose of the Study and Major Research Questions

No consensus exists in the literature about the most appropriate delivery system for gifted and talented students (Cox, Daniel, & Boston, 1985; Nash, 1984). In fact, when learning outcomes were compared across four program types (Special School, Separate Class, Pull-Out, Within-Class), no single programming arrangement fully addressed all the

cognitive and affective needs of students (Delcourt et al., in press). The purposes of this study were threefold: (a) to formulate a system for selecting "exemplary" program models; (b) to further contribute to the knowledge base of gifted education by conducting in-depth examinations of outstanding elementary school gifted programs; (c) to examine ways in which outstanding programs address the needs of students from diverse cultures. Four programs were identified and studied with the intention of providing educators and policy makers with in-depth profiles of successful program implementation.

This project addressed four major research questions: (a) What characterizes a program identified as an "exemplary" model of a given type (Pull-Out, Within-Class, Separate Class, Special School)? For the purposes of this study, characterization as an "exemplary" program was based on the program's ability to serve traditionally underserved populations of students since this was a priority of the grant funding agency, the Office of Educational Research and Improvement, U.S. Department of Education. (b) Which key variables are consistent across "exemplary" models of all four program types? (c) What are the influences of such "exemplary" programs on student achievement and motivation? (d) What distinguishes the "exemplary" representative model in terms of its ability to serve diverse populations of students?

Significance

There is no consensus in theory or in practice, regarding the most appropriate delivery system for gifted and talented students. In fact, there is common acceptance that the quality and success of programs vary greatly. Hence The National Research Center Advisory Council (NRCAC), an advisory group for The National Research Center on the Gifted and Talented (NRC/GT), gave high priority to the examination of various types of programs for gifted elementary school students (See Table 1). In response, this study was structured to add to the knowledge base of gifted education by conducting in-depth examinations of outstanding elementary school gifted programs. Its purpose was not to judge or evaluate one model against another, but rather, to investigate excellence within each program type. One outstanding program identified in the Learning Outcomes Study was selected from each of the four program types: Within-Class, Pull-Out, Separate Class, and Special School. All selected programs were subjected to a case study investigation of practices and contexts that promoted success.

Procedures

Sample

The Learning Outcomes Study included 11 school districts representing 4 types of programs for the gifted. Research sites included 3 special schools, 3 Separate Class programs, 4 Pull-Out programs, and 4 Within-Class programs (two school districts supplied more than one program type). One "exemplary" program was selected from each category, using the following five-step hierarchical process: (a) all districts were contacted to inquire whether or not school personnel would be able to participate in a follow-up research project (see Appendix A for demographic information.); (b) from the pool of districts willing to participate in an additional project, each program's documentation was examined for the completeness of the goals, objectives, program identification procedures, curricular plans, evaluation strategies, provisions for students from culturally diverse and economically disadvantaged backgrounds, and consistency among all of these factors (see Appendix B for all completed Program Profiles); (c) students' scores were assessed across

academic and affective learning outcomes (achievement and self-perception); (d) questionnaires about program satisfaction were sent to program coordinators and a purposeful sample of administrators, teachers, parents, and students; (e) in an hierarchical manner, the data from steps a, b, c, and d were compared to select one program in each type of strategy, searching for the best example of an internally consistent program with positive student outcomes.

Table 1

Meeting the Priorities of the Needs Assessment and the Priorities of the National Research Center Advisory Council

	Priority of NRCAC	Priority of Learning Outcomes Study Extension (direct-N/A[a])
1.	Longitudinal assessment of the impact of gifted programs on student outcomes	direct
2.	Regular curriculum modifications	direct
3.	Teacher training/staff development necessary for curriculum modification or development	direct
4.	Grouping patterns and impact on learning outcomes	direct
5.	Instructional approaches to education	direct
6.	Motivation	direct
7.	Effectiveness of differentiated programs for economically disadvantaged, underachieving and other special populations	direct
8. a	Self efficacy	direct
8. b	Cultural/Community reinforcement	direct
10.	Policy implications	N/A
11. a	Teachers as assessors	N/A
11. b	Grouping by special populations	direct
13.	Program options in relation to student characteristics, settings, training, articulation	direct
14.	Process vs. content	N/A
15.	Use of research in assessment	N/A
16.	Impact understanding of gifted/talented "differences"	N/A
17.	Effects of grouping on all students when gifted are grouped	N/A
18.	Assumptions/stereotypes of underachievement	N/A
19.	Student characteristics associated with success	direct
20.	Cooperative learning	N/A
21.	Relations between community and program	direct

Note: Items #9 and #12 are referred to as #8.b and #11.b, respectively.

[a] N/A means that the item does not apply to the focus of the present study.

Four districts were selected using this process. The Special School is located in an urban area in the Northern central section of the country. Its students are homogeneously grouped on a full-time basis in a building designated for the gifted and talented. Students in the Separate Class program are from a rural community in the Southwest. They receive their instruction in homogeneous groups for all content-area courses and are housed in schools with students not identified as gifted and talented. The Pull-Out program is implemented in a rural town of the Southeast. Its participants attend a resource room for two hours each week with curriculum based on interdisciplinary units and independent study. Located in the Northern central section of the country, students from the Within-Class program attend heterogeneously grouped classes 100% of the time. Differentiation of the curriculum is achieved using cluster grouping, independent study, as well as creative and affective enrichment activities. All programs have goals pertaining to both academic and affective outcomes. Their instructional techniques are tailored to the needs of high ability learners.

All districts required that teachers have specialized training in the characteristics and needs of gifted learners and encourage their staff to complete graduate courses on topics such as creativity, characteristics of the gifted, and thinking skills. All districts stated that they provide ongoing staff development for teachers who work in their programs for gifted students.

Design

In order to overcome the weaknesses and biases that might prevail in a multiple case study design, all analyses emphasized triangulation of data methods and sources. This technique provided checks for both reliability and validity of collected data. Sources and methods of collecting data are listed below.

1. Source - the school
   Methods - document analysis of gifted program policies and procedures
2. Source - the student
   Methods - semi-structured interview schedule, tape-recorded and transcribed; observation of selected students
3. Source - the parent
   Methods - semi-structured phone interview schedule
4. Source - the teacher
   Methods - observation of classroom practices; semi-structured interview schedule, tape-recorded and transcribed

Data Collection

Documents describing each school district's gifted program were requested by mail approximately five months prior to visiting each site. Over a three-day period, on-site observations of classroom activities took place using the Classroom Practices Record (CPR) (Westberg, Dobyns, & Archambault, 1990). This instrument was used to collect information about "the differentiated instruction that gifted and talented students receive through modifications in curricular activities, materials, and verbal interactions between teachers and students" (Westberg, Dobyns, & Archambault, 1990, p. 1). This assessment tool contains six sections: Identification Information, Physical Environment Inventory, Curricular Activities, Verbal Interactions, Teacher Interview Record, and Daily Summary. Additionally, interviews were conducted with teachers and randomly selected students and their parents. Participants were asked to describe the program and its impact on students. Refer to Appendix C for a list of questions used during interviews. To ensure consistency, all data were collected by the same individual, the principal investigator of this project.

Analysis

The analysis of the data proceeded with the formation of case records (Patton, 1980). The unit of analysis per record was the program. Within each record, information gathered from programs, observations, and interview data underwent content analysis in a search for patterns and themes (Spradley, 1979). In order to investigate the consistency of responses, all data were triangulated (Mitchell, 1986). The technique of triangulation provides checks for both reliability and validity of data since the researcher can compare responses from multiple sources (i.e., parents, teachers, and students) using a variety of data collection methods (i.e., documents, observations and interviews) (Smith, 1975). For example, when a school had a written objective to improve parental involvement in the gifted program, triangulation was used to understand how school staff encouraged this involvement. At the Special School, this information was verified in two ways. First, parental involvement in the school's lunchtime activity period was observed. Second, parents commented about their support of and involvement with their child's education during phone interviews. Following the analysis of all records individually, they were compared and contrasted as regards patterns, themes, and categories (Miles & Huberman, 1984; Swanson-Kauffman, 1986). Conclusions were related to the existing literature on programs for the gifted and talented. In addition, a cross-validation technique was used to verify data coding, conclusions, and recommendations. An evaluator, knowledgeable in the areas of programs for the gifted and evaluation, reviewed and critiqued the researcher's findings.

Results

Research Question #1: What characterizes a program identified as an "exemplary" model of a given type (Special School, Separate Class, Pull-Out, Within-Class)?

For the Special School, addressing the needs of students from diverse cultural and economic settings is a clear priority. Its teachers believe that in order to work effectively with students, they must be well acquainted with them and adapt the curriculum accordingly. Indeed, there may be as many as five instructional levels per class, making it paramount for teachers to adjust the curriculum to their students' needs. The administration and the faculty feel that an enriched educational program expands the knowledge of students in preparation for their future academic and career choices. This program is made possible because of the impressive commitment of all staff members to the philosophy of the school. It is the very ingenuity and creativity of administration and faculty which create an obviously exciting educational environment. However, this stimulating environment also makes staff reluctant to leave the school, creating a low faculty turnover rate. This could be seen as a negative aspect, a hindrance to faculty interactions with other teachers. The instructors also report that they are somewhat disturbed by the public's perception of their job as easy because they teach in a school for gifted students. School personnel try to convey to the public their pride in the program they have developed and maintained for a very diverse group of students.

The Separate Class program is located in a small community whose members promote traditional values for their children. They are concerned about how well the students learn basic skills and they want them to obtain at least a high school education. The program for the gifted and talented serves to expand the regular school curriculum by offering a Separate Classroom program with an enriched curriculum presented at a moderate pace. The teachers explained that it was a challenge for them to incorporate the

objectives for the gifted and talented program into the framework of the required skills and testing procedures of the regular curriculum. All teachers used texts adopted by the school district for their grade levels, and competency tests in reading, writing, and mathematics are given every quarter. The results of these tests are used by the teachers to adjust their instruction based on student strengths and weaknesses. The academic staff are accountable for attaining specific standards with the entire class. The G/T teachers reported that most students do very well on the tests. However, this form of evaluation caused concern among the faculty about the pacing of their instruction in order to match the exams. They wanted to ensure that their students learned and reviewed the skills being tested, but they also wanted to supply an enriched curriculum that motivated the class.

The Pull-Out program provides students with advanced level concepts through a part-time resource room format. The activities of the Talented and Gifted (TAG) classes are presented at a faster pace than for those of the regular curriculum. The contents of both classes are occasionally integrated. All classroom environments are student-centered, providing individual, small group, and large group instruction. All teachers (TAG and regular classroom) enthusiastically promote a child-centered approach and strive to provide their high ability students with a differentiated curriculum that is an integral part of the school program. Some instructors do not feel sufficiently informed about the content of the gifted program, but they strongly agree with the philosophy of educating gifted students in a resource room program. The TAG teachers are itinerant. Each elementary level teacher is assigned two grade levels across three schools. Instructional facilities available to TAG teachers in this district vary from school to school. In one building, an instructor may enjoy a well-equipped classroom as vacated by an art class once a week, and in another situation be assigned to conduct classes behind the stage curtains in the auditorium.

The grouping arrangement used in this Within-Class program is based on clustering students identified as gifted and talented in two classes per grade level. Approximately one third of a class are G/T students and the remainder are above average in ability. The curriculum operates at a faster pace than that of the regular school program. Based on a Schoolwide Modified Enrichment Triad Model, this program offers enrichment opportunities across all subject areas. Teachers also promote collaborative learning through shared decision-making. Parental involvement is actively sought in order to establish a strong link between the school and the community. Unfortunately, teacher efforts at encouraging parent participation in the school have not met the expectations of the program administrator.

Research Question #2: What are the key variables consistent across all four program types?

Five main themes emerged from the data (leadership, atmosphere and environment, communication, curriculum and instruction, and attention to student needs) and each program was examined in relation to these themes. Furthermore, results revealed that there were strong consistencies across all programs leading to recommendations for program development and implementation.

Leadership. In an "exemplary" model, there is a strong administrative voice to represent and implement the program for gifted learners. This individual oversees the development of long-term goals and objectives and communicates this information to everyone in the school community. Such leaders ensure that staff and community members fully understand and support their program.

Atmosphere and Environment. An accepting atmosphere throughout the school promotes a positive attitude toward the program for the gifted and talented for all who are involved, e.g., students, parents, teachers, and administrators. In these programs, students are comfortable with their educational and social environments. Staff members are given the time, materials, and training to address and meet the needs of gifted learners.

Communication. Clear and frequent communication is maintained between parents, teachers, students, and administrators regarding the program. This is accomplished through both general strategies (i.e., newsletters) and individual contacts (i.e., phone calls). These communications include information about program activities and provide commendations as well as recommendations about student performance.

Curriculum and Instruction. Teachers are flexible in matching both curriculum and instruction to student needs. They employ a variety of instructional techniques to complement student characteristics. As a result, the students feel that they are appropriately challenged. For example, there is a great endeavor to match the pacing of the curriculum with the student's ability in a given subject.

Attention to Student Needs. Academic staff and administrators are committed to serving students from traditionally underrepresented populations. They take assertive roles in selecting these students for their programs. Staff are also sensitive to the needs of these students once they enter the programs.

Such factors are to be found in any "exemplary" school program. Literature about successful schools and school reform often consider the themes that emerged from this study: leadership (Simmons & Resnick, 1993), learning environment (Clark & Astuto, 1994), communication with families (Comer, 1991; Vandergrift & Greene, 1992), curriculum and instruction (Joyce, 1991), and attention to the individual needs of students (David, 1991). What makes the school programs in this study different from those considered in the general literature is the focus on a specific population of students, those with high ability.

Research Question #3: What are the influences of such "exemplary" programs on student achievement and motivation?

Parents, teachers, and students agree that exposure to challenges and choices are two of the influences with a major impact on gifted students' achievement and motivation. Challenges are provided through advanced or enriched content as well as appropriate pacing of the curriculum. Techniques such as curriculum compacting are used to present topics at an appropriate, more advanced level. One teacher in a Special School program said, "the grouping itself is a motivator since students can progress at a fast pace and they can work with each other to succeed." Corroborating this remark, a parent at the same school noted that her daughter. . . likes the fact that she is in a class with other students who are on the same level." A parent whose child attends a cluster class for a Within-Class program said that she can see the improvement in her daughter's motivation since she started the program. This parent noted, "It's not the same old curriculum all of the time. . . . I've noticed [my daughter] write more and more stories. . . . The program improves her study habits. It lets her explore."

Becoming self-motivated toward achievement is obviously easier for some students than for others. To assist with this goal, teachers also provide many opportunities for students to make their own choices and to obtain control over their learning environment.

Research Question #4: What distinguishes the "exemplary" representative model in terms of its ability to serve diverse populations of students?

These "exemplary" models in gifted education addressed the needs of diverse populations of students in three main ways. First, all selected programs focused on the identification of underrepresented populations of students in their written policies. Represented in these policies were specific populations such as those from diverse cultural groups, the physically challenged, those with limited English proficiency (LEP), underachievers, and the economically disadvantaged. Second, by focusing on the individual needs of all students, teachers took into consideration in their instruction such student characteristics as the use of non-standard English, a limited educational experience, and others. Third, parental and community involvement were seen as vital to the success of the program and to each child's education. District coordinators invited parents to school events, distributed questionnaires about potential family interactions with the school, and kept parents informed about their child's educational program.

Chapter 2: Review of the Literature

Specific literature describing the necessary components for successfully implementing a program for the gifted and talented is presented in this chapter. Schools selected for this study represent the four program types most frequently implemented in public schools in the United States. Their characteristics as well as their potential strengths and weaknesses are detailed. An important outcome of any program for the gifted is high academic achievement for all identified students. Hence, this construct is examined, particularly in terms of its relation to motivation. Achievement and motivation are also presented as they relate to student learning outcomes in specific program types. Next, literature which focuses on underrepresented populations of gifted students is presented. Finally, key features of successful programs for the gifted are related to characteristics of successful schools.

General Program Components in Gifted Education

An analysis of all journals in gifted education published between 1957 and 1989 revealed that program development was a primary topic for articles over these last three and a half decades, with curriculum and instruction most often the focus in these publications (Hays, 1993). Despite the literature emphasis on program development, program designs created by local school boards are still highly variable or altogether nonexistent, making it rather difficult to compare one program description with another. This is largely due to local and state policies for gifted education. Some states require that school districts complete and submit for approval a prespecified plan for the identification and education of their gifted students (Passow & Rudnitski, 1993), while other states offer no mandates for gifted education (14 states) or let alone mention gifted students in their educational policies (2 states) (Coleman & Gallagher, 1992). Passow and Rudnitski (1993) conducted a study of state policies regarding the education of gifted learners. They received documents from 49 of the 50 states which they analyzed based on 13 factors:

1. State Mandated Services
2. District Plans for the Gifted
3. Gifted Education as Part of Special Education
4. Philosophy or Rationale
5. Definitions of the Gifted and Talented
6. Identification Procedures
7. Programs for the Gifted and Talented
8. Differentiated Curriculum and Instruction
9. Counseling and Other Support Services
10. Parental Involvement
11. Teacher Education and Certification
12. Program Evaluation
13. Funding for the Gifted

Whether mandated or not, these state-level factors are included in comprehensive local program plans which tend to include the following general components:

1. Needs Assessment
2. Staff Education
3. Philosophy, Rationale, Goals, Objectives, and a Written Program Plan
4. Types of Gifts and Talents to be Provided for and Estimated Enrollment

5. Identification Methods and Specific Criteria
6. Specific Provisions for Identifying Female, Underachieving, Handicapped, Culturally [Diverse], and Economically Disadvantaged Students
7. Staff Responsibilities and Assignments
8. Arranging Support Services
9. Acceleration and Enrichment Plans
10. Organizational and Administrative Design
11. Transportation Needs
12. Community Resources: Professionals and Organizations
13. In-Service Workshops, Training, and Visits
14. Budgetary Needs and Allocations
15. Program Evaluation

(Davis & Rimm, 1985, p. 41)

These key components are applicable to all types of programs such as special schools for gifted learners, resource room programs, separate classrooms, and programs using heterogeneous grouping in the regular classroom. Furthermore, all programs should be described in terms of these features, at the very least, in order to promote an adequate conception of the program (Gallagher, 1985). In the 1985 Richardson study of able learners conducted in the United States (Cox, Daniel, & Boston, 1985), a written document of program goals and procedures was considered important enough to become one criterion for categorizing a district as offering a "substantial" program . Unfortunately, a discrepancy sometimes exists between the written description of the program and its actual implementation. Refer to Hunsaker (1991) for a detailed description of this discrepancy as it applied to a sample of identification systems for gifted and talented students.

Consequently, a basic criterion of an "exemplary" program should be a set of clearly stated goals, objectives, identification procedures, curriculum plans, evaluation strategies, administrative procedures, and provisions for students from underrepresented populations, all being consistent with the philosophy of the program. While the presence of a written plan does not ensure that a program will be successful, it nevertheless provides evidence of a necessary structure for implementing an effective program model.

Four Programming Arrangements in Gifted Education

Special School Programs

Theoretically, students in Special Schools have the benefit of full-time instruction at a more advanced pace and/or with more thorough coverage of content (Cox, Daniel, & Boston, 1985). Students are selected to attend these programs because of their high aptitude or talent in one or more targeted areas (e.g., art, music, academics). Although completely separated from the general student body in their neighborhood schools, they have maximum opportunity to interact and socialize with peers of comparable ability. This model is not as common as others due to the expense of hiring qualified staff, the maintenance of an additional facility and extra equipment, and often the transportation of students from a wide geographic region. Also required is the philosophical support for an educational program which is set apart from the general population (Fox & Washington, 1985).

The strengths of this approach reside in its potential to offer an appropriate curriculum for gifted learners across all disciplines, to provide less repetition in basic skills, and to provide students with more opportunities to work with classmates who have similar

interests and abilities (Cox, Daniel, & Boston, 1985). Weaknesses of this option are the potential stress of the demanding courses (Kline & Meckstroth, 1985), the possible lack of appropriate peer and administrative support (Farrell, 1989), and the potential for a student to develop an attitude of elitism from being in a separate school over a long period of time (Newland, 1976).

Separate Class Programs

When the Separate Class program is employed, students are grouped by ability for most or all of their academic classwork (Gallagher, Weiss, Oglesby, & Thomas, 1983). Students in the gifted program have limited classroom contact with other students, although they may have joint classes for subjects such as music, art, or physical education. Proponents of this form of programming have found no harmful social or emotional effects in placing students in separate environments (Brody & Benbow, 1987). They also agree that gifted students in this setting are relieved from the repetitious character of their regular class instruction (Feldhusen & Kroll, 1985), are more likely to share their interests in special topics with other students within their group, and to display greater achievement as well as more positive attitudes toward school than gifted students in non-ability grouped settings (Kulik, 1992; Kulik & Kulik, 1987, 1991).

Major disadvantages of separate classes pertain to the students' perceptions of their talent with respect to the abilities of others. Van Tassel-Baska (1987) cites the possible negative effects of "insensitivity to nongifted peers" and "development of self-concept based on perceptions of ability rather than total person" (p. 258).

Pull-Out Programs

Students in Pull-Out programs are in a regular classroom for most instructional purposes, but leave the classroom for a portion of the school week in order to attend special classes with other identified gifted students (Reis, 1981). The amount of time spent in the special program may vary from a few hours per week to a full day or more per week. As the most popular model in the United States, the Pull-Out design is characteristic of approximately 70 percent (Cox & Daniel, 1984) to 95 percent (Oglesby & Gallagher, 1983) of the districts which offer programs at the elementary school level. This design also presents both strengths and weaknesses regarding a student's psychological and emotional needs.

The strengths of this approach lie in the following areas: the contacts students establish with their intellectual peers (Renzulli, 1987); the access to more appropriate curriculum during the Pull-Out sessions (Van Tassel-Baska, 1987); the flexibility of the curriculum which offers more choices for the variety of student interests (Cox & Daniel, 1984); and the integration of students with their nongifted peers (Belcastro, 1987).

In contrast, researchers are critical of Pull-Out approaches that teach skills without providing instruction for their application to other situations (Cox & Daniel, 1984). Regarding curriculum, Cox and Daniel (1984) also caution that resource classes may become fragmented and produce confusion when students only participate in these activities for a short time each week. Labeling a child "gifted" as a result of being "pulled out" of a class becomes a burden if there exists resentment on the part of the child's age mates (Carter & Kuechenmeister, 1986). Finally, teachers in the regular classroom may also resent the gifted student's being "pulled out" since the top students are absent from class and often report that their special class was more challenging and exciting (Cox & Daniel, 1984).

Within-Class Programs

The Within-Class format provides students with special educational services while they remain in the regular classroom (Van Tassel-Baska, 1987). High ability learners may be homogeneously grouped within a particular class or may be allowed to work independently. The mainstreaming approach requires that the classroom teacher adapt the regular curriculum in order to provide appropriate experiences for the identified gifted learner (Kaplan, 1981). The strengths of these programs include the integration of the high ability students with their peers in the general school population (Coleman & Treffinger, 1980), the development of independent learning techniques (Treffinger, 1986; Treffinger & Barton, 1979), and the encouragement of a more cooperative atmosphere as gifted students help slower learners (Van Tassel-Baska, 1987). Lack of an apparent peer group based on ability (Van Tassel-Baska, 1987), the possibility of a less challenging curriculum, and the potential repetition of basic skills (Van Tassel-Baska, 1987; Westberg, Archambault, Dobyns, & Salvin, 1993) have been identified as potential weaknesses of this program type.

The type of program arrangement a school chooses is critical for three reasons. First, it has an impact on the distribution of human and material resources assigned for a program (Morgan, Tennant, & Gold, 1980). Second, it determines the potential amount of interaction a student has with both intellectual and same-age peers. Third, it affects the curriculum content and strategies used within a program (Cox, Daniel, & Boston, 1985).

The Relation Between Academic Achievement and Motivation

An important outcome of any program for the gifted is high academic achievement for all identified students. Hence, this construct is examined, particularly in terms of its relation to motivation. Academic success is reflected in many factors such as satisfaction with one's accomplishments, performance on a standardized assessment of a particular content area, and the application of knowledge and skills to new situations. The educational accomplishments of students are often indicated by grades reflecting their performance in the classroom and by standardized achievement test scores representing acquired information across a variety of academic content areas. Due to the subjectivity of classroom grading systems, standardized achievement test scores are more appropriate measures of academic standing for research purposes since they are considered to be reliable and valid sources of scholastic accomplishment. Criticisms of using achievement test scores for assessing learning outcomes of high ability students stem from the inability to measure growth if tests cannot adequately measure high achievement. This problem can be addressed by selecting instruments with adequately "high ceilings."

Differences in achievement can be explained by varying levels of internal factors (ability and effort) and external factors (difficulty of the task and luck) (Nicholls, 1978; Weiner, 1979, 1985). Taking each of these variables into consideration, effort or motivation is the only factor an individual can effectively control. Theories of motivation attempt to explain how much and what type of control an individual can exert over his or her behavior.

Elliott and Dweck (1988) believe motivation depends on the goals of the person in a particular situation. Their theory addresses: performance goals, i.e., an individual's perception of how he or she is being judged while completing a task; and learning goals, i.e., the mastery of skills while completing a task. Harter (1980) also provides a situation-specific view of motivation in which intrinsic and extrinsic motivation are assessed based

on five hypothetical constructs: Preference for Challenge vs. Preference for Easy Work Assigned (PC); Curiosity/Interest vs. Pleasing the Teacher/Getting Grades (CI); Independent Mastery vs. Dependence on the Teacher (IM); Independent Judgment vs. Reliance on Teacher's Judgment (IJ); Internal Criteria vs. External Criteria for Success/Failure (IC). Harter believes that motivation is developmental. She reports systematic developmental differences for each scale (1980, 1981). Linear trend analyses conducted on data from the standardization sample indicated that scores for younger students represented a more intrinsic orientation for the three subscales of PC, CI, and IM. This preference gradually changes to an extrinsic orientation by the ninth grade. The opposite pattern occurs for the subscales of IJ and IC, as a student begins with an extrinsic orientation and evolves to a more intrinsic perspective.

Focusing on general scholastic performance, Gottfried (1982, 1985) reported a positive correlation between intrinsic motivation and academic achievement for fourth through eighth grade students. Goldberg (1994) used structural equation modeling to develop an exploratory causal model for examining the relations between intrinsic motivation, perceived competence (scholastic and social), and academic achievement in a sample of second and third grade high ability students. His research suggests that intrinsic motivation positively influences perceived competence, which positively affects academic achievement. Academic achievement serves to increase intrinsic motivation, completing the feedback loop in the causal model. Naturally, intervening factors can influence any of these variables in a given situation, but the direction of the effect contributes to our understanding of the relation between motivation, achievement, and individual perception of competence.

Learning Outcomes of Achievement and Motivation

A review of the literature was conducted on the effects of gifted programs for elementary and middle school students during the last 20 years. Educational Resources Information Center (ERIC) and Psychological Abstracts computer data bases were searched in an effort to locate published studies that assessed outcomes related to school achievement using a pre-post design with a control group. A total of 5 studies were located. Aldrich and Mills (1989) reported improved reading and vocabulary scores for fifth and sixth grade students in a rural community who attended a Pull-out program one day per week for a full year. Carter (1986) compared students from three settings: a Pull-Out program focusing on higher level thinking skills, a comparison group of gifted students, and a group of nongifted students. He found higher achievement scores for the gifted students in the specialized program focusing on the development of higher level thinking skills. Coleman's (1983) work revealed that second and third grade gifted students attending a Pull-Out program for 3 hours per week showed improved writing abilities after nine weeks. Writing abilities were also analyzed by Stoddard and Renzulli (1983). They compared writing samples of gifted students in a Pull-Out program to students from a Within-Class program and those from a control group. Their results revealed that gifted students in both programs had significantly higher writing quality than students in the control group, with students from the Within-Class program having the highest scores on this variable. Parke (1983) focused on mathematics and found improved mathematics skills in gifted students who participated in a self-instruction course for three hours per week over 10 weeks. These results show that students in programs for the gifted perform significantly better on measures of achievement than their gifted peers not attending programs.

It is not clear how different forms of service delivery compare to one another since most of these studies include only one type of program compared to a control group. This is a critical issue, since programs which differ markedly in cost and effort could possibly have comparable effects on academic outcome. Moreover, most studies have concentrated on standard measures of achievement, but have neglected to consider other desirable academic outcomes, such as improved motivation (see Maker, 1986; Sternberg & Davidson, 1986).

A recent study of learning outcomes, Delcourt, Loyd, Cornell, and Goldberg (in press) investigated cognitive and affective changes in elementary school students across four program types. The Learning Outcomes Study was a two-year investigation of 1,010 children during their first two years in a gifted program. Students were assessed during the fall and spring of the 1990-1991 academic year and again at the beginning and end of the 1991-1992 school year. Subjects were from 14 different school districts in 10 states and included African-American, Hispanic, and Caucasian/non-Hispanic students (the latter will be referred to as Caucasian students). The study compared students enrolled in gifted programs (Special Schools, Separate Classroom programs, Pull-Out programs, and Within-Class programs), high ability students from districts where no program was available at the designated grade levels, and students in regular classrooms. Analyses focused on assessments of student achievement, attitudes toward learning processes, self-perception, and intrinsic/extrinsic motivation over a two-year period.

The primary research questions were examined using analysis of covariance procedures, controlling for initial differences in performance and socioeconomic status. The independent variables were program type (four levels representing participation in one of the programs for the gifted, two comparison groups) and racial/ethnic status. The dependent variables were each of the outcome variables. Significant differences between gifted programs were examined in the first set of analyses. Eleven ANCOVA procedures were completed, one for each outcome variable (5 achievement subtests, 2 self-perception inventories, and 4 motivation scales). After controlling for social status and initial differences in first round scores, significant differences were found in academic achievement and affect across the four types of programs for gifted students. In addition, not one of the program types showed significant increases for all academic and affective outcomes. Follow-up analyses were conducted using Student-Newman-Keuls procedures for comparisons of means. Results indicated that students in Special Schools, Separate Class programs, and Pull-Out programs showed higher levels of achievement than students from Within-Class programs. African-American students had significantly lower levels of achievement than Caucasian students. There were no significant differences across program type or ethnic status for Social Acceptance, the degree to which children felt comfortable with their friends. Students from Pull-Out and Within-Class programs felt more capable in their academics, preferred more challenges in the classroom, and were more likely to want to work independently than their peers in Separate Class programs.

The second research question directed efforts to examine effects of learning outcomes in a traditionally underserved population of gifted students, African-Americans. There were no first-order interactions for program type and racial/ethnic status for any of the examined variables. In other words, program type did not have any differential effects on African-American students in the study. Across all subscales, however, Caucasian students had higher achievement scores than African-American students. As discouraging as this result may seem, scores for African-American students were at or above the mean for their respective grade levels and these scores showed an upward trend across testing periods.

Across six levels of group membership, there were significant differences in program type and racial/ethnic status for academic and affective outcomes. In terms of achievement, gifted children attending special programs performed better than their gifted peers not in programs. Specifically, children in Special Schools, Separate Class programs, and Pull-Out programs for the gifted showed substantially higher levels of achievement than both their gifted peers not in programs and those attending Within-Class programs. Students from the Gifted Comparison Group where no program was available at the designated grade levels, Pull-Out program, and Within-Class model had higher perceptions of their scholastic abilities than children from the Separate Class and the Special School Programs. There were no differences by program type or ethnic status with respect to Social Acceptance and students had positive views of their social relations with peers (overall mean = 2.94 on a 4-point scale). Likewise, no significant differences appeared either across groups or according to racial/ethnic status regarding the scale of Internal vs. External Criteria for Success/Failure. The overall mean for this scale was 2.89 on a 4-point scale, indicating that students were more likely to know when they were succeeding or failing on school-related tasks. Students from Within-Class and Special School programs felt more capable than nongifted students in making judgments about what to do in school instead of relying on the teacher's judgment. Students from Separate Class programs were the most reliant on teacher guidance for completing assignments and solving problems. The programs with the lowest scores on the Preference for Challenge scale were the ones with the highest levels of achievement in traditionally more academic environments, the Separate Class and Special School programs.

In summary, before deciding on any particular option, policy makers should bear in mind that there are significant differences in achievement and affect for students between the various types of programs for the gifted. No single program fully addresses all the psychological and emotional needs of students. Yet if success can be gauged by high academic performance as well as satisfaction with oneself and one's learning environment, then the concept of specific programming for the gifted is clearly valid.

Traditionally Underserved Student Populations

Students with multicultural backgrounds such as African-Americans and Hispanics represent a special segment of the gifted and talented population which has not yet received adequate research attention (Baldwin, 1985; Richert, 1986). The current literature offers little information concerning characteristics of these students enrolled in elementary school gifted programs (Cooley, Cornell, & Lee, 1990; Maker & Schiever, 1989). In fact, many authors have noted the difficulties of identifying culturally diverse students for these programs (Baldwin, 1985; Masten, 1985) and stressed the need to consider both academic and affective outcomes for Hispanic and African-American students (Frasier, 1979; Maker & Schiever, 1989).

Students from low income families form another underrepresented group in programs for the gifted. According to Menacker (1990), family income "has always been a critical feature of student background that has most heavily influenced the school success or failure of students" (p. 318). Researchers are questioning the impact of racial/ethnic status as a primary characteristic for their investigations of equity in education. Instead of, or in addition to racial/ethnic status, socioeconomics has been designated by some researchers as the deciding variable for issues of student performance (Wilson, 1980). In comparisons of American College Test (ACT) scores of high school students and reading achievement scores of elementary school students, Menacker (1990) found that those from low-income schools had significantly lower achievement than their counterparts in higher-income

schools. He concluded that "the environmental conditions that influence the learning predisposition of students are of major importance" (p. 324).

Investigations of school populations that are culturally diverse and include children who are economically disadvantaged reveal that these students do respond to special instructional techniques that reinforce their talents (Baldwin, 1994). Baum, Owen, and Oreck (in press) successfully identify and develop talent in music and dance for economically disadvantaged, bilingual, and handicapped elementary school children. Successful programs have also focused on clarifying issues of identity for students struggling to succeed academically, but reluctant or afraid to abandon their cultural heritage (Lindstrom & Van Sant, 1986). Educational and career counseling have assisted these students in understanding their abilities and in making realistic plans for the future (Lindstrom & Van Sant, 1986). Recommended curricular provisions for Hispanic children have included the use of mentors and community involvement, the use of concrete examples of abstract concepts, the development of creative skills, and a focus on affective needs (Udall, 1989). Torrance (1989) also stressed the need for mentors as a curriculum strategy for African-American students. He stated that successful programs are based on the development of student strengths, including their creative abilities.

A study of cognitive and affective learning outcomes of elementary school students in four different types of programs for the gifted showed that there were no differential effects for Caucasian and African-American students by program type (Delcourt et al., in press). This leads to the conclusion that no particular program type affected the learning outcomes of students according to racial/ethnic status. Despite the fact that they showed lower performance in achievement than Caucasians, African-American students participating in programs for the gifted maintained above average academic standings throughout the two years of the study. Traditionally, African-American students have been underrepresented among the gifted population because of insufficient or faulty identification. The present study, however, demonstrates that once they are admitted into appropriate programs, their achievement levels remain above the national average and continue to follow an upward trend over time. This provides further evidence that these programs are by and large valid, successful learning environments for students from the second largest ethnic population of this country.

Characteristics of Successful Schools and Programs

Themes such as the five which are described in this study are to be found in any "exemplary" school program. Literature about successful schools and school reform often consider the themes that emerged from this study: leadership (Simmons & Resnick, 1993), learning environment (Clark & Astuto, 1994; David, 1991), communication with families (Comer, 1991; Vandergrift & Greene, 1992), curriculum and instruction (Joyce, 1991), and attention to the individual needs of students (David, 1991). What makes the school programs in this study different from those considered in the general literature is the focus on a specific population of students, those with high ability. School personnel who focus on a particular population such as the gifted consider in great detail the characteristics and needs of these children when selecting staff and implementing the curriculum.

After analyzing characteristics of gifted programs, Reis and Renzulli (1984) presented a list of key features of successful programs for gifted and talented students:

1. The Golden Rule: Provide a Thorough Understanding of the Model
2. Planning Prior to Program Implementation

3. Inservice and Administrative Support
4. Establishment of a Planning Team
5. Program Ownership
6. Student Orientation
7. Communication with Prime Interest Groups
8. Flexibility
9. Evaluation and Program Monitoring

Although their list was originally formulated based on programs using the Enrichment Triad Model (Renzulli, 1977), these points can be used as guidelines for developing and monitoring any program type. This information should be coupled with empirical data about practices in gifted education. Shore, Cornell, Robinson, and Ward (1991) reviewed 100 recommended practices in the following areas: advocacy and administration, identification and assessment, curricular and program policies, advice to educators, advice to parents, advice to professionals, social and emotional adjustment, and special groups of gifted children. Each recommended practice for the gifted and talented includes a definition of the concepts pertaining to the particular practice, a description of current knowledge in the field, implications for action, and areas of needed research. According to Shore et al. (1991), 9 of the 24 recommended practices related to differentiating the curriculum for the gifted are "strongly supported" (p. 279) or have "some support" (p. 280) from research-based studies. Unfortunately, 34 recommended practices across all categories were found to have "insufficient research to make a judgment about support" (p. 283). This means that programs for the gifted are making a positive impact on gifted students, but many common practices and assumptions prevalent in gifted education require additional investigation.

CHAPTER 3: Methodology

Purpose of the Study and Major Research Questions

The purposes of this study were threefold: (a) to formulate a system for selecting "exemplary" program models; (b) to further contribute to the knowledge base of gifted education by conducting in-depth examinations of outstanding elementary school gifted programs; (c) to examine ways in which outstanding programs address the needs of students from diverse cultures. Four programs were identified and studied with the intention of providing educators and policy makers with.in-depth profiles of successful program implementation.

This project addressed four major research questions: (a) What characterizes a program identified as an "exemplary" model of a given type (Pull-Out, Within-Class, Separate Class, Special School)? For the purposes of this study, characterization as an "exemplary" program was based on the program's ability to serve traditionally underserved populations of students since this was a priority of the grant funding agency, the Office of Educational Research and Improvement, U.S. Department of Education. (b) Which key variables are consistent across "exemplary" models of all four program types? (c) What are the influences of such "exemplary" programs on student achievement and motivation? (d) What distinguishes the "exemplary" representative model in terms of its ability to serve diverse populations of students?

Given the characteristics of qualitative procedures, it was expected that an evolving set of factors and variables would emerge for consideration. The focus and concern of the initial observations and interviews in the investigation centered on the following questions:

1. Are there characteristics of this "exemplary" model of a grouping arrangement which facilitate differentiation within this type of arrangement?
2. Which types of teacher training/staff development are provided?
3. Which teacher selection procedures are in place?
4. What are the instructional strategies, staff and parental attitudes, teacher characteristics, etc. which influence the motivation and/or achievement of the students in this program?
5. How do classroom student evaluation procedures affect student motivation?
6. Which characteristics of this model are associated with positive outcomes for students from culturally diverse and economically disadvantaged backgrounds?

Procedures

Design

In order to overcome the weaknesses and biases that might prevail in a multiple case study design, all analyses emphasized triangulation of data methods and sources. This technique provided checks for both reliability and validity of collected data. Sources and methods of collecting data are listed below.

1. Source—the school
   Methods—document analysis of gifted program policies and procedures

2. Source—the student
   Methods—semi-structured interview schedule, tape-recorded and transcribed; observation of selected students
3. Source—the parent
   Methods—semi-structured phone interview schedule
4. Source—the teacher
   Methods—observation of classroom practices; semi-structured interview schedule, tape-recorded and transcribed

How Sites Were Selected

The Learning Outcomes Study included 11 school districts representing 4 types of programs for the gifted. Research sites included 3 special schools, 3 Separate Class programs, 4 Pull-Out programs, and 4 Within-Class programs (two school districts supplied more than one program type). One "exemplary" program was selected from each category, using the following five-step hierarchical process: (a) all districts were contacted to inquire whether or not school personnel would be able to participate in a follow-up research project (see Appendix A for demographic information.); (b) from the pool of districts willing to participate in an additional project, each program's documentation was examined for the completeness of the goals, objectives, program identification procedures, curricular plans, evaluation strategies, provisions for students from culturally diverse and economically disadvantaged backgrounds, and consistency among all of these factors (see Appendix B for all completed Program Profiles); (c) students' scores were assessed across academic and affective learning outcomes (achievement and self-perception); (d) questionnaires about program satisfaction were sent to a purposeful sample of administrators, teachers, parents, and students; (e) in an hierarchical manner, the data from steps a, b, c, and d were compared to select one program in each type of strategy, searching for the best example of an internally consistent program with positive student outcomes. Furthermore, a priority of the project was to select programs serving economically disadvantaged and culturally diverse groups of students.

All districts required that teachers have specialized training in the characteristics and needs of gifted learners and encouraged their staff to complete graduate courses on topics such as creativity, characteristics of the gifted, and thinking skills. All districts stated that they provide ongoing staff development for teachers who work in their programs for gifted students.

Instrumentation Used to Select Sites

Achievement

Student achievement was analyzed by comparing scores for Mathematics Concepts and Reading Comprehension using the Iowa Tests of Basic Skills (ITBS) (Hieronymus, Hoover, & Lindquist, 1986). Variables were based on scores calculated from the difference between initial scores in the fall of 1990 and scores from the spring of 1991. These values are referred to as "change scores." The internal consistency reliability estimates reported by the authors across Level 8 (Grade 2) and Level 9 (Grade 3) ranged from .91 to .93 for Reading Comprehension (RC) and .80 to .87 for Mathematics Concepts (MC). For the spring testing period of 1991, internal consistency reliability estimates for the entire sample of gifted students from the Learning Outcomes Study ranged from .84 -.86 for Level 8 and .85 -.91 for Level 9 across both subtests.

Self-perception

This construct was assessed using the Harter Self-Perception Profile for Children (SPPC) (Harter, 1985). From the 6-scale instrument (Scholastic Competence, Social Acceptance, Athletic Competence, Physical Appearance, Behavioral Conduct, and Global Self-Worth), this study used the subscales of Scholastic Competence (SC) and Social Acceptance (SA). The SC scale taps the child's perception of his or her ability within the field of school-related scholastic performance. Items from the SA scale assess the degree to which the child feels accepted by peers or feels popular. The standardization sample included students from lower middle class to upper middle class communities in Colorado. Approximately 10% of the subjects were non-Caucasian. Results are not reported by racial/ethnic status. For each 6-item scale, scores are based on a 4-point response format with a value of 4 representing the most favorable response. For each item, students were asked to circle the statement that is most like them and were instructed to indicate whether that statement is "really true for me" or "sort of true for me." A sample item for SC contains these sentences: *"Some kids feel that they are very good at their schoolwork" but "other kids worry about whether they can do the schoolwork assigned to them."* After reading the directions, the test administrator read each item aloud as the students completed the survey. Internal consistency coefficients listed in the manual ranged from .80 to .85 for SC and .75 to .80 for SA. Harter (1985) found no systematic effects for grade level or sex of elementary school children on either of the subscales for this study. Internal consistency reliability estimates for the sample of gifted students from the Learning Outcomes Study were .63 for SA and .67 for SC.

Program Profile Form

A Program Profile Form was developed in order to efficiently review data from each program's written documentation. Categories on the form include: philosophy, goals, objectives, definition of giftedness, program identification procedures, curricular plans, evaluation strategies, and provisions for students from culturally diverse and economically disadvantaged backgrounds. Two individuals with expertise in the field of evaluation provided feedback regarding content categories and layout. This advice was subsequently used to revise the form. A sample form is provided in Appendix B.

Program Satisfaction

Parallel forms of the Program Satisfaction Survey were developed for students, parents, teachers of the gifted, and school principals (see Appendix D). Content validity of the survey was investigated by distributing the questionnaire to five experts in gifted and talented education. These individuals were asked to provide comments about the content of the items and construction of the survey format. Survey questions for parents, teachers, and administrators addressed the areas of achievement, challenge, social development, self-concept, curriculum, communication, and general attitudes about the program. Respondents were instructed to complete the survey about their particular program. Survey questions were worded to reflect the roles of the respondents. For example, parents were asked to assess the program's impact upon their own child, while teachers and administrators were asked to assess the impact of the program for both gifted and nongifted students. Each of these survey versions consisted of 7 to 9 multiple choice items with four possible responses (e.g., "very important," "somewhat important," "of little importance," "not important") and 1 or 2 open-ended questions. The student version included four items about course content, challenge, enjoyment, and social relationships. Students responded to the questions by circling one of three choices: "most of the time," "sometimes," or "never."

Instrument Used to Determine Program Characteristics

Classroom Practices Record (CPR)

On-site observations of classroom activities took place using the Classroom Practices Record (CPR) (Westberg, Dobyns, & Archambault, 1990). This instrument was used to collect information about "the differentiated instruction that gifted and talented students receive through modifications in curricular activities, materials, and verbal interactions between teachers and students" (Westberg, Dobyns, & Archambault, 1990, p. 1). This assessment tool contains six sections: Identification Information, Physical Environment Inventory, Curricular Activities, Verbal Interactions, Teacher Interview Record, and Daily Summary. In a training exercise, observers "demonstrated at least 80% criterion-related agreement on the four event categories and the total training exercise" (Westberg, Archambault, Dobyns, & Salvin, 1993, p. 19).

Interview Questions

Semi-structured interviews were conducted with 3 sources: students, parents, and teachers. The student interview schedule contained 8 items. Students were asked to explain their gifted program, what they do in the program, and what they would change about school. Each parent responded to 7 questions about the program's impact on their child regarding areas such as academic achievement, motivation, self-concept, and creativity. They were also asked to describe the types of communication they have with school staff. The most extensive interviews were undertaken with program teachers, since they were able to provide a thorough overview of the day-to-day procedures of the program's implementation. Among other questions, teachers were asked about how students' needs were addressed by their participation in the program; how the particular program influenced their teaching; how and when they communicated with parents; and what impact they thought the program had on the academic achievement, motivation, self-concept, and creative abilities of their students. Interviews with teachers contained 22 items. All items were reviewed for clarity and appropriateness by two experts in the field of gifted education. Recommended adjustments were made to each set of questions. Refer to Appendix C where the interview questions are reproduced.

Site Selection Procedures

Consent to Participate in the Study

All 11 district coordinators of the gifted and talented participating in the Learning Outcomes Study were contacted. They were asked if they would be interested in participating in a follow-up to the longitudinal study. It was explained that an updated program description would be requested, that a program satisfaction survey would be sent to parents, teachers, students, and administrators, and that an on-site visit might be requested. Only School personnel at sites A, B, C (Special School), E, G (Separate Class), I, K (Pull-Out), M, and O (Within-Class) agreed to participate in the proposed qualitative study. The amount of time required of students and staff that would be involved in the site visits served as a deterrent to full participation.

Analysis of Program Documentation

The purpose of this step was to organize key features of a program's documentation, searching for gaps in the program's description (e.g., no specified philosophy or goals) or inconsistencies among the data (e.g., a program that identifies students from reading achievement scores, but offers a program in science enrichment).

This information was used to locate potential sites with valid educational concepts. Inclusion of this criterion for selecting a quality program is based on the Richardson Study Survey (Cox, Daniel, & Boston, 1985) which qualified a program in gifted education as "substantial" when a program description was supplied.

Program descriptions for all 14 programs within the 11 districts were gathered as part of the original longitudinal project, the Learning Outcomes Study. In order to identify a sample efficiently, only programs providing consent were included in this step of the selection process. Two of the nine programs giving consent had incomplete data about their program structures. Programs A, B, C (Special Schools), E (Separate Class program), I (Pull-Out program), M, and O (Within-Class program) supplied comprehensive documentation.

To record evidence of comprehensive program models, Appendix B includes program profiles for the seven sites describing in detail the completeness of the philosophy, goals, objectives, program identification procedures, curricular plans, evaluation strategies, and provisions for students from culturally diverse and economically disadvantaged backgrounds. The document section least often completed was evaluation. While student evaluation was evident through assigning letter grades or providing narrative accounts of student progress, a plan for program evaluation was only described by four sites: A, E, M, and O.

At this point, site E (Separate Class) and site I (Pull-Out) were selected because they were the only programs of their type to fulfill the first two criteria: consent was given for participation in the project and their program descriptions were complete. To provide additional support for the selection of these sites, student scores from the Separate Class and Pull-Out programs were also analyzed in the next step of the site selection process. A review of scores from measures of both cognitive and affective learning outcomes included all programs from the Special School, Separate Class, Pull-Out, and Within-Class models.

Analysis of Student Scores Across Programs Within Program Types

Selected subtests from the ITBS were administered in the fall of 1990 and the spring of 1991. The average time between testing periods was approximately 25 weeks. A descriptive analysis of change scores for Mathematics Concepts and Reading Comprehension took place. Results revealed that subjects in sites C, E, I, and M had the greatest gains in Mathematics Concepts from the fall to the spring (see Table 2). Students attending programs for the gifted in sites C, G, H, and M had the greatest gains in Reading Comprehension (see Table 3).

Analysis of Student Self-perception Scores Across Programs Within Program Types

A descriptive analysis of change scores for Scholastic Competence and Social Acceptance was undertaken. Results revealed that subjects in sites C, G, I, and N had the greatest gains in Scholastic Competence from the fall to the spring (see Table 4). Students attending programs for the gifted in sites B, G, K, and N had the greatest gains in Social Acceptance (see Table 5).

At this point in the selection process, students at site C have shown consistently high scores for cognitive (Mathematics Concepts and Reading Comprehension) and affective learning outcomes (Scholastic Competence), as compared to the other Special School programs. Site E showed the greatest gain in Mathematics Concepts among the Separate School programs, but did not complete the self-perception scales for the second

round of data collection. Site E also had a sound program description, as described above. For the Pull-Out programs, site I met the first two criteria and its students had the greatest gains in Mathematics Concepts and Scholastic Competence. Site M, employing a Within-Class model, had higher student scores in achievement than sites L, N, and O, but did not have the greatest changes in self-perception among the Within-Class programs. At the end of this stage, sites C (Special School) and M (Within-Class program) can be added to the list of selected programs with sites E (Separate Classroom) and I (Pull-Out program).

Table 2

Changes in Grade Equivalent Scores for Mathematics Concepts on the Iowa Tests of Basic Skills for Programs Within Program Types

Program Type/Program	n	Fall 1990 Mean	Spring 1991 Mean	Change Score
Special School				
A	25	33.12	43.20	10.08
B	14	31.93	40.21	8.28
C	12	39.50	50.17	10.67
Separate Class				
D	22	29.86	37.68	7.82
E	17	20.00	43.33	21.33
G	31	43.29	46.97	3.68
Pull-Out				
H	31	31.55	40.42	8.87
I	13	33.32	45.86	12.54
J	35	39.17	49.34	10.17
K		not available		
Within-Class				
L	27	29.82	39.00	9.18
M	12	26.25	37.42	11.17
N	31	38.58	45.45	6.87
O	20	32.35	35.80	3.45

Note: A grade equivalent score of 29.60 refers to the second year, ninth month (May) of school. Change scores represent months in the academic year. Values for K were not available because the district was unable to administer the subscale for the spring 1991 data collection period.

Table 3

Changes in Grade Equivalent Scores for Reading Comprehension on the Iowa Tests of Basic Skills for Programs Within Program Types

Program Type/Program	n	Fall 1990 Mean	Spring 1991 Mean	Change Score
Special School				
A	25	34.64	38.92	4.28
B	15	32.20	36.80	4.60
C	12	44.08	49.58	5.50
Separate Class				
D	23	34.17	38.65	4.48
E	17	35.17	38.23	3.06
G	31	48.71	54.23	5.52
Pull-Out				
H	31	29.13	38.71	9.58
I		not available		
J	37	47.24	52.41	5.17
K		not available		
Within-Class				
L	28	36.21	42.25	6.04
M	13	23.54	30.23	6.69
N	31	41.32	45.87	4.55
O	18	34.00	40.00	6.00

Note: A grade equivalent score of 29.60 refers to the second year, ninth month (May) of school. Change scores represent months in the academic year. Values for I and K were not available because the districts were unable to administer the subscale for the spring 1991 data collection period.

Table 4

Changes in Scores for Scholastic Competence Comparing Programs Within Program Types

Program Type/Program	n	Fall 1990 Mean	Spring 1991 Mean	Change Score
Special School				
A	19	3.10	2.74	- 0.36
B	9	3.04	2.85	- 0.19
C	11	3.27	3.38	0.11
Separate Class				
D	22	3.10	2.99	- 0.11
E		not available		
G	18	3.40	3.19	- 0.21
Pull-Out				
H	23	3.03	3.15	0.12
I	8	3.44	3.65	0.21
J	41	3.21	3.26	0.05
K	4	3.63	3.50	- 0.13
Within-Class				
L	24	2.83	2.96	0.13
M	10	3.32	3.45	0.13
N	29	3.18	3.41	0.23
O	19	3.23	3.30	0.07

Note: A grade equivalent score of 29.60 refers to the second year, ninth month (May) of school. Change scores represent months in the academic year. Values for E were not available because the district was unable to administer the subscale for the spring 1991 data collection period.

Table 5

Changes in Scores for Social Acceptance Comparing Programs Within Program Types

Program Type/Program	n	Fall 1990 Mean	Spring 1991 Mean	Change Score
Special School				
A	17	2.86	2.96	0.10
B	9	2.80	3.04	0.24
C	11	2.98	2.79	- 0.19
Separate Class				
D	24	2.64	2.80	0.16
E		not available		
G	21	2.75	3.00	0.25
Pull-Out				
H	24	2.83	2.83	0.00
I	8	3.15	3.06	- 0.09
J	38	2.93	2.90	- 0.03
K	5	3.47	3.53	0.06
Within-Class				
L	23	2.64	2.71	0.07
M	11	3.05	3.06	0.01
N	27	2.97	3.09	0.12
O	15	2.98	3.02	0.04

Note: A grade equivalent score of 29.60 refers to the second year, ninth month (May) of school. Change scores represent months in the academic year. Values for E were not available because the district was unable to administer the subscale for the spring 1991 data collection period.

An Investigation of Student Learning Outcomes: Results of a Program Satisfaction Survey

All program coordinators indicated that the Program Satisfaction Surveys could be distributed in their local school districts. In some cases, however, the surveys could only be administered in certain schools. This sample included 57 from a total of 92 schools across the 14 programs in the Learning Outcomes Study. Since it was a priority of the study to include students from underrepresented populations, all 91 students from participating schools who were categorized as non-Caucasian (African-American, Hispanic-American, Asian-American, Native Americans) were included in the sample. A random selection of the remaining students was made. The total sample contained 300 students, 116 males and 125 females. All selected students and their parents were surveyed about the particular program operating in their school, as were the teachers of the gifted for each student, and the school principal.

The Program Satisfaction Surveys were distributed to students, parents, and teachers through the program coordinators at each school. The return rates ranged from 0 - 100% for students, from 0 - 56% for parents, from 0 - 80% for teachers, and from 0 - 100% for administrators. Refer to Table 6 for details of return rates by program. This variability in the return rates prevented statistical analyses of the responses between programs within program types. Follow-up phone calls to coordinators revealed that teachers reported a lack of time to distribute and complete the inventories. For a discussion of responses analyzed across program type refer to Delcourt and McIntire (1993).

Selection of "Exemplary" Models From Each Program Type

Data from each of the steps listed above resulted in the selection of sites C (Special School), E (Separate Class), I (Pull-Out), and M (Within-Class). Permission was received to conduct the study in each targeted district. One class at each of two different grade levels per site was randomly selected for the study. A three-day on-site visitation schedule was arranged, including classroom observations and interviews with teachers and a random selection of students and parents. Appendix E contains the district contact letter and proposed visitation schedule. A qualitative analysis, using multiple case studies, was conducted. Field notes, interview transcriptions, and a classroom observation record (Westberg, Dobyns, & Archambault, 1990) were analyzed for patterns, themes, and issues related to curriculum and environment for each type of gifted program. A matrix depicting this project's goals, timeline, and data sources is presented in Appendix F.

Four districts have been identified as "exemplary" school programs in gifted education. The Special School is located in an urban area in the Northern central section of the country. Its students are homogeneously grouped on a full-time basis in a building designated for the gifted and talented. Students in the Separate Class program are from a rural community in the Southwest. They receive their instruction in homogeneous groups for all content-area courses and are housed in schools with students not identified as gifted and talented. The Pull-Out program is implemented in a rural town of the Southeast. Its participants attend a resource room for two hours each week with curriculum based on interdisciplinary units and independent study. Located in the Northern central section of the country, students from the Within-Class program attend heterogeneously grouped classes 100% of the time. Differentiation of the curriculum is achieved using cluster grouping, independent study, as well as creative and affective enrichment activities. All programs have goals pertaining to both academic and affective outcomes. Their instructional techniques are tailored to the needs of high ability learners. A more detailed account of each program's demographic features can be found in Appendix A. All curricular options are listed in Appendix B.

Table 6

Program Satisfaction Surveys: Sample Size and Return Rate

Program Type/ Program	Student Sample	Return Rate	Parent Sample	Return Rate	Teacher Sample	Return Rate	Admin. Sample	Return Rate
Special School								
A	22	22	22	4	2	0	1	1
B	20	17	20	1	3	0	1	1
C	17	18	17	3	3	1	1	0
Separate Class								
D	28	21	28	6	10	4	7	2
E	10	0	10	0	1	1	1	1
F	10	10	10	4	3	1	1	1
G	36	35	36	20	4	4	1	0
Pull-out								
H	24	12	24	8	10	5	9	3
I	9	9	9	7	6	4	6	3
J	40	0	40	0	8	3	8	0
K	3	3	3	2	2	1	2	0

Note: Administrators were building principals.

Table 6 (continued)

Program Satisfaction Surveys: Sample Size and Return Rate

Program Type/ Program	Student Sample	Return Rate	Parent Sample	Return Rate	Teacher Sample	Return Rate	Admin. Sample	Return Rate
Within-class								
L	24	18	24	12	8	6	8	3
M	17	10	17	3	4	0	4	1
N	23	0	23	7	5	2	5	2
O	12	12	12	6	5	4	5	3

Note: Administrators were building principals.

Data Collection

Over a three-day period, observations of classroom practices took place in addition to interviews with teachers and a random selection of students and their parents. Appendix E contains the teacher contact letter establishing the schedule for data collection. Refer to Appendix C for a list of the interview questions used as a general guide. Table 7 provides data about the number of individuals interviewed at each site. To ensure a consistent point of view, all data were collected by the same individual, the principal investigator of this project.

Data Analysis

The analysis of the data proceeded with the formation of case records (Patton, 1980). The unit of analysis per record was the program. Within each record, information gathered from programs, observations, and interview data underwent content analysis in a search for patterns and themes (Spradley, 1979). In order to investigate the consistency of responses, all data were triangulated (Mitchell, 1986). The technique of triangulation provides checks for both reliability and validity of data since the researcher can compare responses from multiple sources (i.e., parents, teachers, and students) using a variety of data collection methods (i.e., documents, observations and interviews) (Smith, 1975). For example, when a school had a written objective to improve parental involvement in the gifted program, triangulation was used to understand how school staff encouraged this involvement. At the Special School, this information was verified in two ways. First, parental involvement in the school's lunchtime activity period was observed. Second, parents commented about their support of and involvement with their child's education during phone interviews.

Table 7

Number of Individuals Interviewed at Each Site

	Program	Student	Parent	Teacher
C				
	Grade 3	3	3	1
	Grade 4	4	2	1
E				
	Grade 2	4	2	1
	Grade 3	6	2	1
I				
	Grade 2	2	2	1 (regular class)
	Grade 3	4	2	1 (regular class)
				2 (gifted program)
M				
	Grade 2	4	2	1
	Grade 3	4	1	1
Total		31	16	10

Following the analysis of all records individually, they were compared and contrasted in terms of patterns, themes, and categories (Miles & Huberman, 1984; Swanson-Kauffman, 1986). Conclusions were related to the existing literature on programs for the gifted and talented. In addition, a cross-validation technique was used to verify data coding, conclusions, and recommendations. An evaluator, knowledgeable in the areas of evaluation and programs for the gifted, reviewed and critiqued the researcher's findings.

Five key themes emerged from the data analysis: leadership, atmosphere and environment, communication, curriculum and instruction, and attention to student needs. A focus on strong leadership was observed in each district as teachers referred to the principal or coordinator as the individual who is the main advocate for the program, who is consistently identified as the innovator of change, and who orchestrates the implementation of the program. Atmosphere and environment refer to statements by students, parents, and teachers. Students explained that they were pleased with their scholastic achievement and social relations. Parents also noted that their children seemed to be satisfied with the ideas that were introduced in the program, the activities they undertook, and the friendships they established. The learning environment was also a key element for teachers as they described the attitude they liked to develop about the program and how they organized their classrooms. Communication between parents and staff emerged as an important issue as staff tried to find more ways to promote parental involvement in schools. Each district had a plan for increasing parental support which was documented in their program descriptions and was actively promoted by their staff. The category of curriculum and instruction is an obvious component of any school program. Concepts such as enrichment, acceleration, cooperative and collaborative learning, critical thinking, individual instruction, and student assessment are all included in this topic and explained as they pertain to each program. Finally, when teachers were asked how they addressed the diverse needs of students in their classrooms, they provided examples of ways in which they focused on individual characteristics, such as a student's background knowledge, specific academic capacities, or areas of talent.

CHAPTER 4: Results

This section reports the results of the study according to the four main research questions. First, descriptions of the four "exemplary" programs are organized according to the five key themes of leadership, atmosphere and environment, communication, curriculum and instruction, and attention to student needs. Second, patterns and themes consistent across all sites are reported. Third, data related to student motivation and achievement are considered. Fourth, services for traditionally underrepresented populations of students are addressed. While none of the following programs is problem-free, each staff tries to employ a model that responds to the needs of the particular student population and incorporates parents and members of the community. To preserve confidentiality, the names of the school districts, programs, and professional titles of individuals have been changed.

Research Question #1: What characterizes a program identified as an "exemplary" model in gifted education (Special School, Separate Class, Pull-Out, and Within-Class)?

Special School Program Setting

The Meadowbrook Public Elementary School, located in an urban area of the Northern Midwest (city population = 685,000), serves 270 students in grades 3, 4, and 5. This study focuses on 2 classrooms, one in grade 3 and another in grade 4. There are three classrooms per grade level, with students from a variety of racial/ethnic backgrounds.

Constructed in the late nineteenth century, the three-story red brick building embodies a long tradition of providing innovative educational programs. The present principal has worked with his staff to design a learning environment that makes children want to arrive at school early and go home as late as possible. While this is a special school for gifted and talented youngsters, it does not cater to an elite section of the population. Instead, the school population represents a wide range of above-average ability students from the inner city and suburban areas.

The school's surrounding neighborhood contains commercial buildings and smaller old brick businesses. Twenty-eight school buses drop the students along a sidewalk where they enter the building by way of a paved playground. A slightly faded student-designed mural adorns the schoolyard wall. Climbing the wooden staircase directly past the building's entrance already provides a view of the many activities of the school. Prints of famous artwork hang in the staircase along with student paintings. Mobiles dangle from the ceiling. The wide corridors with their gleaming hardwood floors are lined with student-made inventions. Color is everywhere, yet loud noise is strangely absent. The yelling and arguing of high-pitched young voices is replaced by the giggling and chatting of students, glad to see another visitor, and explain the automatic sheet music page turning machine displayed on a nearby table.

Finding the office is easy. Everyone provides immediate help and hospitality to the visitor. A walk to the office at the end of the hall brings to mind a question about the visibility inside the building. The halls have subdued lighting from table lamps to complement the fluorescent tubes from the 15-foot high ceilings and create an unusually pleasant atmosphere. The office has the same warm lighting arrangement and friendly voices. Soft, classical music is heard throughout the room. The personnel are ready to

answer questions and supply a visitors' packet with a table of contents which includes 18 items:

1. Handbook
2. Staff Roster
3. School Schedule
4. Midday Options Program Description
5. School Calendar - Parent Newsletter #19
6. New Claim to Fame [magazine article about the school]
7. Student Letter to [principal] - Parent Newsletter #35
8. Student Letter - Parent Newsletter #144
9. Gifted and Talented [Special School] Program (Bulletin)
10. What are [Special Schools]? (Bulletin)
11. Teacher Letter
12. Home Assignment/Project
13. Pupil Progress Report
14. Candidate Nomination Form
15. Symphony/Art Museum - Parent Newsletter #5
16. General PTO Information - Parent Newsletter #194
17. Parent Human Resource File Survey - Parent Newsletter #50
18. [School] Info Bulletin #51 - Which School in September?

Program philosophy and student identification. The program was organized as a Special School for the gifted and talented with the purpose of mixing Caucasian students from the suburbs with students from the variety of racial/ethnic groups who live in the city. Four to five hundred students are nominated annually among second graders throughout the city's public school system. These referrals include teacher recommendation, achievement scores, and reading level. The concept of giftedness is based on general intellectual ability, specific academic aptitude, leadership ability, creative or productive thinking, and visual and performing arts. A teacher checklist includes the following topics: General Information (student name, address, birthdate, ethnicity, sex, present school); Achievement Test Data, primarily in the areas of reading and mathematics; Reading Book Level; a checklist of Student Potential in the five areas listed above (general intellectual ability, etc.); a checklist of Student Performance with items encompassing all five areas of Student Potential; and a space for Comments in which the classroom teacher provides an assessment of the nominated student's potential areas of talent and performance as well as social and emotional status.

This school was founded because of a court ruling for desegregation in this city's public schools. Therefore, the proportions of the racial/ethnic groups represented in the school must reflect the student population in the entire city, which guides the selection process. In other words, since there are 90 slots for the third grade and 55% of the city's student population is African-American, the top 50 African-American students from the nomination pool are selected for the program. This process continues with other racial/ethnic groups until all students except Caucasians have been identified. Caucasian students are overselected by about 50%. If there are 38 slots, 57 students are nominated and a computer-generated program randomly selects the 38 students for the school. Predetermined cutoff scores are not employed for any of the decisions regarding selection. This is a political measure to some extent, due to the difficulty of choosing the final list of Caucasian students since so many parents want their children to attend the program. Unfortunately, all above average students nominated for the program might not be identified using this process. Students who are not selected for the school may apply to other schools and programs for the gifted and talented in this city. For those who are selected, their educational program in a special school for high ability learners can continue

beyond the fifth grade. They are encouraged to apply to a middle school for the gifted and talented.

The success of this program lies directly on the shoulders of the principal. As one of the senior administrators in the city, this individual is deft at maneuvering around the bureaucratic intricacies of a large urban district. A grade three teacher commented, "He is a mover and a shaker. . . . I see him as being supportive of anything that he thinks is truly good for kids."

Leadership. Strong and consistent leadership comes from a principal who has been with the school since its founding 16 years ago. He directs the school largely from his belief that this is a business and the students are the clients. "If there's a profit motive, the profit would be a good program for the kids." Thus, he strives to make this a good program by encouraging staff training, bringing innovative community programs into the building, and promoting student activities for the school within the larger public school setting. He feels that in order to get the job done, "You have to like bureaucracies. You have to know what to do to get the things that you need." This, for him, is what makes running a school an art, and not a science. He believes that a school functions effectively only when the most qualified personnel can be selected for a position. Unfortunately, this belief is sometimes contrary to the hiring policy of seniority for academic and non-academic personnel within the district. In addition to selecting staff members, the principal is responsible for financial decisions concerning the school. He oversees many innovative programs, *employing the same budget as every other school in this large urban district.*

If he could name just one weakness he has as an administrator, it would have to be his need for a better background on instructional issues. This is not intrinsically a great impediment to making curriculum decisions because the bottom line remains: Is the proposed idea good for kids? For instance, if a staff member recommends a new textbook, requires a computer program for an advanced mathematics course, or has a suggestion for a guest speaker, that individual needs to justify the recommendation by formulating its importance for the students. Obviously, ideas with greater financial implications are thoroughly investigated before a decision is reached, but all suggestions are taken seriously. By encouraging teachers to find ways for improving the school, this principal has a major impact on the quality of instruction.

Atmosphere/Environment. This administrator believes that part of the school philosophy is to make the environment an appealing place to visit and to learn. Toward this end, office personnel are specifically instructed to deal with the community in a pleasant manner and to provide students with a safe, as well as friendly setting. The school handbook contains a section entitled "Atmosphere." This prevailing philosophy sets the tone for interactions within the school and with the community.

> Visitors are sure to notice the feeling of caring which permeates the school. Student work is displayed everywhere and respect for each student's efforts and personal worth is apparent throughout the building (School Handbook).

Staff members are informed that they are hired to "serve the client," i.e., students, parents/guardians (both of whom shall hence be referred to as "parents"), and community members. If, for any reason, a parent happens to be upset, office staff are instructed to "absorb" the anger and to redirect it to positive efforts at resolving the issue. Thus, if a bus arrived late to pick up a child on a cold morning, a school secretary immediately assures the parent that the bus company will be notified about the unacceptable delay in service. This action is taken immediately and reported to the parent. As the principal has indicated, "It's a business, they [the staff] know what they're trying to do in terms of being service-

oriented. . . and they're good at it." Two parents made the following comments when asked about their experience with the school: "I am treated with respect and all kids seem happy to be there"; "We [parents] flock into the school and feel welcome. I love it!"

Which other factors contribute to this environment? Students are provided with abundant opportunities to learn and their efforts are consistently respected. Every room in the school is filled with the children's work: inventions, drawings, paintings, sculptures, and problems either solved or to be solved. The spacious hallways have inviting reading corners with large, comfortable chairs, tables and lamps. "You'd like your child to come here" one parent visiting the school commented.

Communication. "Parents are part of us." This is another strong belief of the principal. He and his staff stress how vitally important it is for parents to be supportive of their child within the school system. This support is not obtained by attending a meeting once a month, nor by having a conference only when a student displays some negative behaviors. Teachers at Meadowbrook are convinced that the constant pairing between school and a child's poor performance gives the wrong message about a school and its teachers. Parents must assume ownership of the school and its program for the sake of their children.

To instill a sense of ownership in the program, new parents are invited to an orientation meeting and encouraged to participate in specific activities during the academic year. For example, they have the opportunity to become "Picture People." Trained by the local museum, they are supplied with replicas of art which they introduce to small groups of students during the Midday Options Program. This occurs during the lunch hour. An array of daily activities fits into the one-hour lunch period, when students can engage in a seminar while eating lunch (25 minute period) and choose from a number of options before or after their meal. During the noon activities session, students attend a presentation by the trained "Picture People," participate in a computer seminar, view a relaxing film, or practice their golf swings in the third floor gym. One purpose of these activities is for the students to converse with people who enjoy sharing their interests. For instance, in a session called "Learning about Lenny," a father brought in his baby as an introduction to child care and development. This type of interaction communicates to the parent that he or she can contribute to the education of students. It also lets the children see appropriate adult role models.

> We don't care what the activity is. We care about a human being who has some feeling about a youngster, offering something we think youngsters would enjoy. . . . We're not trying to make a class out of it. It's just a human being talking to other human beings, introducing new vocabulary, new interests. Who knows when that magical moment takes place with a kid? A little switch goes off in a kid's head that will predetermine what they'll do later in life. (Principal)

How do parents respond to this message? They agree that there is strong parental commitment to the school. Some quickly volunteer for projects, but others require reminders and a little prodding in order to become involved. Referring to the administrative assistant who arranges the Midday Program, one parent confided, "You can't turn her down. She calls you on the phone and gets you to do things you might not do." Another parent remarked that she was quite comfortable about her interactions with school personnel because "Everybody knows who you are when you walk into the school."

In addition to notes about weekly events scheduled for their children and a monthly parent newsletter, every teacher has his or her own way to communicate with parents, which is done on a frequent basis. Students are recognized for their accomplishments, but

lack of effort is also noted. For example, one third grade teacher has the following policy: if a student does not complete a homework assignment, a note is immediately sent home to the parents; if the work is again incomplete, the teacher calls the parents to discuss techniques for increasing the child's efforts. Her interaction with them stresses a joint effort. "Thanks a lot for helping us with this [homework issue]." According to the teacher, "[It is] a very quick informative non-punitive way of letting parents know that we are maintaining high expectations and we do that every single day with every single assignment." Parents explained in phone interviews that they appreciate the information they get from the school. They want to know what their children are interested in and what challenges them. They want to contribute to what their children are learning.

Communication also pertains to the information the community receives about the program. The principal typically presents the progress made by his school to the city school board and to parent groups. However, teachers report that they feel the need to defend their work to other educators who are under the impression they have an easy workload because they teach in a school for gifted students. They defend their work with conviction and enthusiasm. Thus, to the community, the school is represented by the entire personnel. They try to convey to the public their pride in the program which they have developed and maintained for a very diverse group of gifted and talented students.

Curriculum and instruction. Core curricular courses are presented in a self-contained setting. Most classes have a student teacher who assists with curriculum and classroom procedures. These assistants are recruited from degree programs in teacher education conducted by local universities. The teachers are the instructional leaders for their classrooms. They make decisions about the scope and pacing of the subject matter content in their classrooms and include academic objectives specified by the local school board. They strive to match the curricular pacing with the student's ability. For example, one student in the fourth grade is taking geometry and another is completing his math program in algebra. Instruction for these advanced students is individual. The grade four teacher plans their lessons and provides mathematics assignments each day. He also works with these accelerated students when the rest of the class is being instructed by a student teacher. If a student has an ability in a subject area that is beyond the scope of the classroom teacher's knowledge, a specialist is recruited from the district to provide assignments and to work with the student on an itinerant basis. Teachers find avenues for adapting their curriculum to the needs of the students. One fourth grade teacher describes his view of individualization:

> [My focus] is to develop a program that really meets the needs of every individual. I have 29 children. They're all different. And I don't think there are any two who have the same program from the beginning of the day until the end. I know there aren't. . . . I have to see what their needs are, what their abilities are, and devise a curriculum for each person. It doesn't mean sitting and planning out 29 different things for every minute, but there are special things that every child is doing that are different from everyone else. I have to make sure that it's interesting, that they are challenged, that they feel they are being challenged and it's not a repetition of what they've done before [they came to the school] which is just getting easy work finished and trying to find something to do with their time.

This same teacher constantly changes the class grouping arrangements to address students' interests and academic levels. For example, in a science class, students work individually. Some are reading or taking notes and one student is putting the finishing touches on a flip book displaying the metamorphosis of a moth to a butterfly. The next class is social studies. The total group attend a lecture by the teacher who reviews an account of the migration of people over the Bering Strait. Next, a video is shown dramatizing this

experience. Mathematics begins with students scattered in various parts of the classroom. In this class of 29 children, the student teacher reads the directions for a pretest to one student. She directs him to indicate which answers are guesses and encourages him to leave a blank if he does not know an answer. He completes the test on his own. On the other side of the room, 10 students are now reviewing the answers to the pretest with the classroom teacher. A group of 4 students completes a math review and 12 students are beginning a new math unit with the student teacher. Three students talk quietly to each other near the computers. They are discussing their independent work in geometry and algebra, comparing notebooks. Students who complete their classwork early have the option of responding to a writing assignment indicated on the blackboard or can take turns using the computer. Students are learning computer programming tasks to make their own games. Later in the day, students are assigned to three groups based on their reading abilities. The classroom teacher explains that 5 students are reading for comprehension. A group of 15 students responds to questions about interpretation and prediction. While a group of 9 students answers questions using interpretation, prediction, and literary style.

All types of instructional grouping arrangements are employed in these classrooms: individual, small group, and total class. Many teaching strategies are also incorporated into the curriculum. For example, learning cooperatively is valued by teachers as students are given opportunities to share ideas for projects, hold discussions about the motives of a story character, or predict the next step in a computer program. Teachers also redesign the curriculum to better challenge their students. For instance, the fourth grade teacher has developed his own interdisciplinary spelling program. Example words for the day are *laud*, *parsimonious*, *simultaneously*, and *scamper*. Students are asked to think of applications for each word, such as "Scrooge was parsimonious." Another lesson included 10 words with numerical prefixes, such as *quadrant*, *hexad*, and *trident*. Thus students must know the spelling of the word and grasp the meaning of its prefix.

The third grade teacher also uses a multidisciplinary approach to implementing the curriculum. She selects skills that are reinforced throughout the day. The following account shows how the concept of prediction is reinforced across the curriculum. All students are assigned a story about a dinosaur egg. The teacher directs them to discuss the setting, characters, problem, goals and solution. As soon as the students form groups of three, these groups disperse to complete their task. They sit at tables in the classroom. They sit on the floor, go to the hall, or relocate to the library. Students eat their snacks as they read the specified number of pages, then discuss their responses. The next day, they are asked to make predictions about the end of the story. After they finish reading the selection, they compare their predictions with the actual story ending and discuss ways in which facts can alter predictions. In order to collect facts, the students are asked to make three lists: What I already know about dinosaurs, What I want to learn, What I learned. When they finish responding to the first two items, they all go to the library to conduct research about dinosaurs. Throughout the lesson, the teacher asks higher order thinking questions such as: Why do you think the character felt that way? How is the story related to the concept of "human interest"? Why are people interested in dinosaurs? What is a prediction? What do you need to know to make a prediction?

For another course subject, science, these third grade students are reminded of their predictions from the book they read earlier and asked to make other predictions about the fat content of certain foods. Students work in groups of four or five and are given foods such as an apple slice, a potato chip, a cracker, a piece of bread, a piece of cheese. The students first make predictions. Then they experiment to find out which foods leave the biggest grease spots on a paper towel.

Teachers are responsible for coordinating their curriculum with the many daily activities. The day is indeed busy. In addition to their regular course schedule, students leave the classroom individually or in small groups throughout the week to attend classes in visual arts, physical education, music, home economics, and industrial arts. Additionally, 96% of the students choose to participate in the instrumental music classes scheduled weekly. Offerings in music include classes for string, instrumental, ensemble, advanced ensemble, band, orchestra, and chorus. All students also attend the local symphony orchestra at least three times each year. As indicated in the handbook, "The staff is committed to using cultural activities and resources to enhance classroom experiences." Art activities in the classroom and within the visual arts program are coordinated with additional activities at a local museum. A seemingly endless series of activities creates the backbone for a rich and diverse curriculum which students prize highly. Each class typically has about 45 trips outside of the school each year. These excursions include visiting local businesses and taking a walk with an architect who explains the city center's buildings. Students are excited about such an array of programs which, normally might not be available to them. One remarked, "I have been here for almost two years and I still haven't done everything!"

Of course, coordinating classroom instruction with special classes in this school for the gifted and talented is not always easy for the teachers. They unanimously agree that the most important teaching qualities are organization and flexibility. These characteristics pertain to the careful organization necessary for scheduling activities and the flexibility for addressing student needs.

What additional qualifications should a teacher have in order to work here? There are no state or local teacher requisites for working in a program for the gifted and talented. In this school, the principal makes decisions about the best individual for any position. His decisions for selecting teachers are based on their content knowledge, knowledge of the characteristics of high ability students, enthusiasm to work with these students, and potential for making contributions to the school community, such as the ability to present special content areas to students. There have been very few openings in this school since its inception. One of the teachers thinks that this is a negative characteristic of the school, because he feels there should be more of a turnover of academic staff to bring new ideas to the school.

Student evaluation uses a typical format, quarterly letter grades. These are accompanied by narrative comments by the teacher. In addition, each student comments on his or her performance and finally the parents document their thoughts about their child's progress. Within the classroom, both formative and summative assessment are employed. The third grade teacher explained that she assigns research projects and supplies students with criteria which they must fulfill to obtain a specific grade. When students inquire about their progress in completing a task, they are given feedback in order to alter their work for the final assessment. Students are given opportunities to improve their projects and are allowed to resubmit them. "Overtime," the student teacher says, " the projects are noticeably better." This means that as students participate in the program, they become more independent in selecting and modifying their projects, their creativity improves, and their ability to convey the intent of the project improves. For example, after completing a unit about nutrition, students are asked to develop a new healthy breakfast cereal and to design an advertising campaign for their products. The student teacher points to cereal boxes that include all elements for the original assignment (e.g., nutritive value, appealing package, advertising scheme) and to boxes that have missing elements. Students who produced the boxes with missing elements are given the opportunity to revise their products prior to the assignment of grades. At the beginning of the academic year, considerably more projects were in need of revision as compared to those submitted in the spring.

When asked, "What do you think has been the greatest influence on the academic achievement of students in this program?" One teacher provided the following comments: "I would say learning from one another. . . . How? By looking at other people, by sharing ideas, by working with partners, by getting constant feedback, by showing that we value what we do." Students reported enjoying school and being challenged by it. They were comfortable with both the educational and social environments. Parents also commented on the effect the program has had on their children.

> "This program has revolutionized her academic activity."
> "I never knew any kids who liked going to school like they do."
> "She was very shy, it helped build her self-esteem."
> "Academically, the school prepares kids much more than other schools."
> "I love the breadth of the education."
> "He loves his projects. They require effort, challenge, and pride."
> "I wish all schools were like [this one]. I already have anxiety about the fact that in three years he will not be in this school."

While remarks such as these provide one crucial aspect of program assessment, there was no formal plan to evaluate the school on a regular basis. The principal uses feedback from parents, students, and the community to adjust program activities. The expert teachers are responsible for collecting their own documentation to adjust the curriculum. They visibly enjoy experimenting with new material and novel techniques. Those who participated in this study have the confidence to try new approaches, but also the readiness to adapt activities to individual students. For instance, the third grade teacher states that she enjoys attending workshops throughout the year in order to learn about using different instructional strategies. "I do ability grouping, I do whole group instruction, I do cooperative learning. . . I guess I try lots of different strategies as a teacher. . . . I think it's important to stay on top of all new ideas and strategies." She uses these techniques in an effort to adapt the curriculum to reach each student. She describes her commitment in the following passage.

> The hardest thing for me is not being able to motivate someone. . . . It's that one kid that no matter what you do, he just does not buy into the program. . . . I mean it's like I'm unrelenting in trying to find out why. What's the key? What can I do? I try to find out if he's interested in baseball cards. Okay, for your project for spring. . . make your own baseball cards, include portraits. I'm always trying to personalize the curriculum enough to find out how to make that person buy into it. I'm taking a weekend course on motivation because, to me, that is the most frustrating thing when you can't reach that one kid. I don't give up. I want to reach him. I keep looking for ways. [I] involve the parents. [I] try every single thing I possibly can.

Addressing student needs. The purpose of the program is to educate students from a variety of ethnic groups in one school. As one teacher explains, "The primary goal was to set up integrated schools because we had such a segregated city." Certainly the selection of students from diverse racial/ethnic groups is only the first step toward creating a desegregated learning environment. What particular strategies are used because of these diverse student backgrounds? Both of the interviewed teachers and the principal confirmed that differences in a student's background preparation for learning do not so much reside in racial/ethnic diversity as on the economic backgrounds of the students. Explaining what he has observed, the principal states that ethnicity is not the underlying factor in a student's background that affects academic performance. He continues by saying that socioeconomic status is the most prominent factor because he sees that as compared to students from families with lower income, those from middle class families undoubtedly enter school and

arrive each day with background experiences that are better matched with the objectives and intended outcomes of school. Therefore, teachers must spend more time with students who do not use standard English, who are not in the habit of reading, who have a great number of experiences from their home environments, but are not prepared for academic challenge. One teacher explains that to be an effective teacher, you must understand the student's every day experiences.

> I think it's important to understand the students that you are working with; where they are coming from. There are certainly differences among people. You have to understand language, you have to understand the differences in family structures, you want to understand general differences, but then also not generalize to each student and adopt stereotypes or believe stereotypes. . . . You have to look at each person individually and each person's background. . . . It's just a matter of respecting kids first of all, and working with them. If you don't understand the language they use, if you don't understand their daily experiences and what things they are familiar with and not familiar with, you can't work with them effectively. You'll say things to them that don't mean anything to them. They'll say things to you that you should know, but you won't understand.

The many activities provided by the school serve to broaden the experiences of students which in many cases are rather limited. "We have kids who will be the first ones in the family ever to go to hear a concert, the first ones in their families to ever go to college. . . It's the beginning of opening their eyes to some possibilities in their own lives" (grade four teacher). Classes typically go to one of the local universities several times a year to find out what takes place at a college. For example, the fourth grade teacher has an extensive computer curriculum. He takes his students to the university to see how different departments use computers. They visit the administrative offices, the mathematics department, the school of architecture. Students have observed a computer program designed to create communities on the moon for NASA.

> Part of the purpose [of a field trip] is to go just to see that specific application of something they're working on at school, but part of it is to get every student here on the university campus. Just to get a feel for what it's like, just to see it. . . . They see the university is just another school, something they could do. It's a real thing they could actually do. So *that*, I would say, is an adaptation to the background of the students. (teacher, grade four)

In summary, addressing the needs of students from diverse cultural and economic settings is a clear priority of the school. Teachers believe that in order to work effectively with students, they must be well acquainted with them and adapt the curriculum accordingly. The administration and the faculty feel that an enriched educational program expands the knowledge of students in preparation for their future academic and career choices. This program is made possible because of the impressive commitment of all staff members to the philosophy of the school. It is the very ingenuity and creativity of administration and faculty which create an obviously exciting educational environment.

Separate Class Program Setting

Plainfield is a small rural community in the Southwestern section of the country, located about 5 miles from the Mexican border. The single largest employer in the town is the school system. Thirty-five percent of the population migrate for seasonal employment. Many of these individuals are employed as migrant farm workers, creating a transient subpopulation based on the different crop-growing seasons of the region.

The 20-minute drive from the nearest airport affords a view of the surrounding countryside. The land is flat, used mostly for farming. A few communities are scattered along the highway. Plainfield is a small town of 7.4 square miles with a total population of 12,694. There are no visible industrial or commercial centers. One major hotel chain is represented in the community. Homes are generally one level and modest in size. There are four elementary schools for 2,280 students in grades one through six. These schools are single-story structures, each consisting of several buildings. The cafeteria, gymnasium, library, school office, and classrooms are reached by walking outside in the moderate climate. Ninety-eight percent of the population is of Hispanic origin, and this ethnic group is present in Plainfield's elementary school in the same proportion. This research focuses on two classrooms, one in the second grade and one in the third.

Program philosophy and student identification. The school district has adopted the following definition of gifted and talented (G/T):

> Gifted/Talented students are those who excel or show potential to excel consistently in any of the following areas: general intellectual ability, specific subject matter aptitude, creative and productive thinking ability, and leadership ability. These students would benefit from a differentiated curriculum which offers opportunities for development to the full limit of their capabilities. (Gifted and Talented Program Implementation Plan)

Staff members employing the identification process gather both objective and subjective data including: parent nominations of children; teacher ratings of students in the areas of learning, motivation, creativity and leadership (Renzulli, Smith, White, Callahan, & Hartman, 1976); scores from standardized achievement and aptitude tests (at least the 90th percentile); student grades (at least an average of 90); and student products (when available). The screening/selection committee consists of the school principal, the G/T coordinator, and the G/T teacher. A student who does not have an adequate score on one or more of the instruments used for identification may be considered for placement in the program, provided there is adequate justification by an individual who nominates a particular student. Selection is based on the number of spaces available in a classroom, approximately 22. The program for the gifted usually has two self-contained classrooms per grade level, beginning in the second grade. Only one of these classrooms has a full roster of G/T students. The other class has approximately four students identified as gifted. The remaining 18 students are above average in ability. Six percent of the student population is served in the G/T Program. These students are taught in classrooms adjacent to their nongifted peers. All students are integrated for activities such as art, physical education, and lunch. Students in grades 6 through 12 are grouped for services within the G/T program through a departmentalized instructional arrangement.

Leadership. The source of leadership for the program is the Gifted and Talented Coordinator who has held this position for four years. She is deeply committed to maintaining high academic standards for the gifted students in her district. She recognizes that the creative children in Plainfield's schools require outlets to express themselves. In addition to her work as coordinator of the academic program across the district's schools, she coaches a student team for a creative problem-solving competition and attends all regional competitions related to this program. She believes that it is important to be a role model for supporting students in their many endeavors.

The coordinator also realizes that this is a conservative community where traditional teaching methods are highly valued. Basic skills are stressed across all grade levels including in the G/T program. The district recently initiated quarterly tests of basic competence to gauge student progress. The coordinator assists teachers in integrating the

district's basic skills requirement and the curriculum of differentiated skills employed in the G/T program.

Another goal of all programs within the community is to implement a curriculum that is relevant to students and one that will prepare them for their future roles in society. This means that a priority within the district is to ensure that students attend school through twelfth grade. Compared to the 50% dropout rate in surrounding communities, Plainfield's 11% figure is a positive reflection of the school district's message to "stay in school." This coordinator is also the director of the district's literacy program and she is involved with all special services in the district.

Like many G/T coordinators in small towns, she has many other administrative duties. In Plainfield, she organizes or conducts inservice training of staff, serves on the student identification team, conducts an annual evaluation of the program, and coordinates special activities for the program, such as a creative problem-solving competition, an artifact exchange program, an invention contest, and a university-sponsored academics improvement program.

The coordinator works closely with the school principals who strongly believe that the program provides an appropriate grouping arrangement for meeting the needs of identified students. Using the process of site-based management, the principals also support teacher efforts to improve instruction by allocating funds for classroom materials which can be requested throughout the year.

Atmosphere/Environment. Classrooms are brightly decorated, displaying numerous student projects. In the third grade classroom hang student-made travel posters about different states and three-dimensional representations of books. A computer learning center is located in one corner of the room and two students sit in front of the screen, taking turns using a geography program. The students' desks are arranged in clusters to promote discussion and group work. A variety of audio-visual materials are employed in classes, as seen by the video player and television and the filmstrip viewer pushed against a wall.

In addition to the physical appearance of the classroom, teachers are concerned with the psychological comfort of their students. Program administration and staff stress that students should not be labeled as "gifted" by the school personnel in order to prevent comparisons with other students. According to reports by the students, they do not notice any difference in treatment by their nongifted peers due to their being in a separate class program. It has been a concern that students in the gifted program feel separated from other students in the school district, since they are grouped with the same two classes of students throughout their experience in the school system. To counter this problem, if students are seen as forming cliques, teachers try to widen the students' circle of friends by changing the seating arrangement in the classroom and by moving students between the two self-contained G/T classrooms.

Teachers also feel that the learning environment should include the opportunity for children to take intellectual risks. A third grade teacher in the program noticed that some of the students were hesitant to express their thoughts. She stated that she wants them to feel confident about their ideas in her classroom and during their entire educational program. She explained, "That's why I start right from the beginning of the year with go ahead and do this or think that for yourself. Tell me what you think about this. . . . I make it as comfortable as I can for them." This same teacher felt that students need to begin to express their ideas at an early age in order to develop this ability over time.

> Because I think that they need to learn to be able to do that. . . . They are going to go out into the world after they graduate. . . . They need to be able to stand up for what they believe.

It is important to bear in mind that this is a very traditional Mexican-American region. Sometimes the development of a skill such as risk-taking can be in conflict with values prevalent in the community. Children are familiar with a disciplined environment and occasionally reluctant to share their various opinions with an authority figure such as a teacher. Nonetheless, staff firmly believe that they should provide a learning environment that promotes creative thinking, decision-making, reasoning, and risk-taking (Gifted and Talented Program Implementation Plan).

When parents were asked about the academic and affective consequences of attending this type of program, one parent of a third grade student mentioned that she thought the Separate Class structure offered more advantages than disadvantages. She felt that it was a cost effective approach for a gifted program and that the students received instruction appropriate to their learning needs. Having a child in the program, her greatest concern was the isolation of the students from their nongifted peers. She stated that some of the G/T students were not as "street smart" as their counterparts in other classes. Supporting this opinion, another parent thought the program was providing appropriately challenging academic activities, but she felt that there should be more time for the children to socialize with other students who were not identified for the program. Parents appreciated the fact that the teachers focus on their child's affective needs. One parent concluded: "I know what I want for my child. I want someone who is sensitive to the total needs of a child. . . .[someone] who allows my child to talk and share ideas." Teachers understand this message and make every effort to address both the cognitive and affective needs of their students.

Communication. A parent of a second grade student was pleased that "the staff for the program keeps the public well-informed." In general, parents reported receiving adequate information about the program through participation in parent-teacher conferences and written notes about school activities. One of the teachers, who was recently allocated a classroom computer, was just beginning a newsletter that would be a vehicle for student expression and for information to the local public about the program.

On a day-to-day basis, communication about the operation of the program occurs between building administrators, teachers, and the coordinator through phone conversations, written communications, and meetings. Site-based management is in effect in this district, which results in the development of different avenues of communication, budgets, and curricular plans for each building. The coordinator easily adjusts to the varying school policies for the G/T programs. This may include different interpretations of the student identification process for entry into the gifted program or differences in what might constitute a reason to move a child to a classroom that is not part of the program for the gifted and talented.

Interaction with parents is also important. The coordinator firmly believes that parental/community involvement is necessary throughout the school district and she has a related objective for all schools in the town. On an annual basis, teachers are to invite all parents to attend at least two of the following activities focusing on issues for G/T students: a student program, a workshop session, an open house, an individual conference, or a state conference. An invitation does not require compulsory attendance. Rather, it is a way to gather information in order to plan future activities. It also serves as a vehicle to inform the community of the local, regional, and state activities related to gifted education, and a way to promote continued awareness of the characteristics and potential of high ability youth.

By examining the attendance roster for each event, the popularity of activities among parents was noted.

Curriculum and instruction. Faculty are accountable for state and local goals and objectives. In addition, specific goals and objectives for the G/T program are clearly defined. Teachers work to establish an instructional program for gifted and talented students which will:

1. provide a learning environment which is particularly suited to the needs of the gifted child, especially in the areas of creativity, decision-making, reasoning, communication skills, and a given child's unique talents;
2. provide opportunities for the student to enhance, develop, and use his/her initiative, self-motivation, and originality;
3. engender in the student a sense of responsibility for setting his/her own goals according to interest and ability;
4. assist the student in the development of cognitive and affective skills;
5. encourage the student to participate in activities which incorporate multi-media and multidisciplinary approaches;
6. provide the context in which the student can develop productive relationships with peers, extend the horizons of personal experience, and gain a sense of taking personal responsibility (Gifted and Talented Program Implementation Plan, p. 2).

Teachers explained that it was a challenge for them to incorporate the objectives for the gifted and talented program into the framework of the required skills and testing procedures of the regular curriculum. All use texts adopted by the school district for their grade levels. Competency tests in reading, writing, and mathematics are given every quarter. Results of these tests are used by the teachers to adjust their instruction regarding academic weaknesses of students. The academic staff are accountable for attaining certain standards with the entire class. The G/T instructors reported that most students do very well on the tests. However, this form of evaluation caused concern among the teachers about the pacing of their instruction in order to match the exams. They want to ensure that their students learned and reviewed the skills being tested, but they also wanted to supply an enriched curriculum that motivates the class. How are the required district-wide objectives integrated with the objectives for the gifted and talented program? Teachers use both enrichment and acceleration as strategies for differentiating the curriculum for their students.

Enrichment activities are integrated throughout the curriculum. Targeted skills include the development of advanced research skills such as conducting surveys, interviews, and oral presentations; enhancement of computer skills; participation in scholastic competitions for creative writing and mathematics at a local university; involvement in a national creative problem solving-program; creation of a class newspaper; and development of art portfolios. For example, in a lesson about citizenship, the teacher asked the students for specific ways in which they could determine if someone was a good citizen. This seems like a typical question about this topic. The teacher turned it into a short-term research activity as students were to develop criteria for assessing a good citizen and ways to assess these criteria. The explanation of their results was the writing assignment for their language arts class.

The second and third grade teachers reported that they were able to complete the required goals for the school district at a faster rate than their counterparts in the regular school program. When curricular objectives have been fulfilled (e.g., if all reading selections are completed by April), teachers provide supplemental activities for the students

and may present advanced topics from texts not used by the district. More radical academic acceleration such as advancing the students beyond their grade level is not traditionally employed in this district. Since there are so many possible ways to develop a particular skill through enrichment, teachers felt that acceleration was not a necessary focus. If they are able to accelerate the content of one subject such as mathematics, the teachers use the additional time to extend the content of another subject, such as language arts.

How does homogeneous grouping in a Separate Class program affect instruction? As mentioned earlier, teachers felt that they were able to complete their required objectives at a faster pace while incorporating enrichment activities into the curriculum. They also group students within this class arrangement. They believe that a vital skill for students is learning to work cooperatively. This means that the children share ideas as they work on projects and sometimes share a grade for their efforts. Grouping in this type of classroom is not based on ability, but on student interests. To work cooperatively, the third grade teacher believes that the students need encouragement to express their thoughts.

> I try to get them to think for themselves. That is one thing that sometimes they are weak in. . . . They have not been given the liberty of expressing their thoughts. . . . They worry about "how do I get started"? "Or how do I go about doing it"?

In order to effectively use enrichment and acceleration, faculty members say that the most important teacher quality for this position is the ability to be flexible. This pertains to meeting students' needs and accounting for the local and state required educational objectives. Teachers want to provide a strong educational basis for the students and a qualitatively differentiated curriculum for their high ability learners.

Are there specific official qualifications for G/T teachers? A recent state requirement is a certification of five hours of in-service training. To fulfill this requirement, over the course of one year, the school district offered workshops in the "Identification of G/T Students", "Curriculum Writing for Differentiation of Essential Elements", and "Creative Problem-Solving." Naturally, additional training is encouraged and available through a regional university.

How is this program evaluated? Student evaluation takes the form of letter grades compiled every six weeks. A formal program evaluation system is also employed annually. It focuses on the areas of student identification, staff development, curriculum development, and parental/community involvement. For each area of focus, activities and timelines are specified, names of the persons responsible for each event are listed, and a vehicle for evaluating each activity is provided. For example, the following activity was included in the area of curriculum development: "By August of the current school year, 50% of the gifted/talented program staff in grades K-12 will have written a curriculum guide unit in a topic related to their teaching assignment." A list of responsible persons included the school administrator, program area supervisor, classroom teacher, and G/T coordinator. Details of this evaluation design are available to school personnel and parents in the district's Gifted and Talented Program Management Plan. Topics for these curriculum guides included the development of a school newspaper and the integration of computer skills across the curriculum.

Attention to student needs. The teachers address the student interests through choices in projects integrated into each subject area. The district explicitly adopts a philosophy for including all qualified students in the G/T program:

> The Plainfield School District is committed to excellence in education for all students. Recognizing that this commitment demands fostering and developing the

> abilities of gifted and talented students, the Plainfield School District accepts the responsibility of developing an "exemplary" instructional program for these students. Furthermore, the Plainfield School District is of a belief that all students including those that lack a full command of the English language ([Limited English Proficiency], LEP), those that are members of migrant families, and those that have unique learning styles and/or needs will have equal access to the gifted/talented program. (Gifted and Talented Program Implementation Plan)

Once students are selected for the G/T program, they are expected to complete advanced level projects as part of their class assignments. Teachers commented that students from low income families sometimes lack the resources to complete school assignments. While some students have materials at home such as computer programs, a variety of books and magazines, and an encyclopedia, there are many others to whom these resources are not available. One teacher explained that she has two general methods for dealing with the lack of resources in some students' homes. First, she tries to provide adequate time for completing projects in school; second, she lends students her own supplies or her classroom resources.

In summary, this is a small community whose members have traditional values for their children. They are concerned about how well the students learn basic skills and they want them to obtain at least a high school education. The program for the gifted and talented serves to expand the regular school curriculum by offering a Separate Classroom program with an enriched curriculum presented at a moderate pace.

Pull-Out Program Setting

The town of Glen Cove is situated in the Southeast, surrounded by several suburban areas. The school district of 59,500 inhabitants covers a county of 456 square miles. The establishment of over a dozen new industries in the last five years has improved the per capita income. The number of unemployed workers, however, is greater than the state average. In fact, for the 1990-1991 school year, 45% of the student population qualified for the free or reduced-cost lunch program.

From the nearest airport, the drive to Glen Cove wanders through small towns and over rolling hills. The town center has several historic buildings from the beginning of the twentieth century. Glen Cove has many large residential developments erected over the past few decades. Schools are spaced far apart over the district and a visitor must have ample time in order to travel between them. This is one of the factors which helped promote the use of "site-based management." This term refers to the decision-making procedures followed by administration and faculty at each building. These decisions include the way in which the gifted program is implemented at each school.

One second grade and one third grade classroom were included in this aspect of the study. Faculty and staff at the research site were very positive about their educational programs for all students. The school provided an attractive environment, displaying children's work throughout the school. Art posters lined the walls of the corridors. In the second grade classroom, several posters containing lists of classroom items and their measurements were taped to the walls. A large chart in the front of the room had every child's name and height displayed on a bar graph. Children's stories were also taped to the walls, personalizing the room.

Program philosophy and student identification. This state's office for the Education of the Gifted and Talented (TAG) mandates programs for high ability learners from elementary through secondary school. Guidelines are provided for the definition of

the gifted and talented and for the selection of these students. Programs can be established for those with potential abilities for high performance in academics or for the visual and performing arts. Glen Cove actually operates a program for both categories of students. Multiple criteria are employed to identify the children, beginning with nominations from administrators, parents, teachers, and students. Collected data include intelligence or aptitude test scores, indicators of previous performance (grades, products, standardized achievement test scores), or other data deemed appropriate. A weighted matrix system is used to determine eligibility. The state guidelines also acknowledge that the profile of an underachieving gifted student should be given special consideration. In this case, low achievement or performance may be counterbalanced by above average indicators of intelligence/aptitude.

The district includes 14 schools. There are seven elementary schools with a total of 3,345 students in grades 2 through 6. Approximately 12-13% of the student population have been identified for the gifted program. In grades 2 and 3, a Pull-Out program allows students to participate in interdisciplinary units that are not part of the regularly assigned curriculum. This is scheduled for approximately two hours each week. At the elementary level, the program employs three half-time teachers for eight schools. These faculty members must travel between two to three schools and prepare classes for at least two grade levels. Students in Grades 4 through 6 are transported to a center for the gifted and talented one full day each week. In grades 7 through 9, an enriched social studies curriculum is the basis for the differentiated program. Students in grades 10 through 12 are scheduled into honors and advanced placement courses.

At the second grade level, students are screened for placement in the program the following year. Children from each second grade class who are nominated for the program are asked to rank order a series of topics according to their degree of interest. Consequently, the TAG teacher tries to accommodate the children's choices for topics such as endangered species and creative problem-solving. They participate in three-week units of study for 45 minutes per week. At the end of the unit, another topic is initiated with a different group of learners.

Student responses and interactions during these classes provide the TAG teacher with additional data for the formal identification to the TAG program at the end of the second grade. In the third grade, students attend the program for a minimum of two hours each week. While the topics are pre-selected, students have the opportunity to participate in several different units throughout the year. Students select their own project topics within the units. The topics included for study in the curriculum are science-oriented, but remain multidisciplinary (e.g., tropical rain forests, land formations, insects, etc.). In addition, students have the opportunity to participate in several types of after-school activities such as a creative problem-solving program.

Leadership. Leadership for the program comes from the coordinator, who has a very strong commitment to gifted education. In addition to having earned a doctoral degree in the educational psychology of the gifted and talented, this coordinator also provides extensive training to the district's staff and to graduate students at a nearby college. It is his belief that all teachers, whether in the TAG program or in the regular classroom, should have a wide range of strategies available to address the needs of the variety of learners in their classes. The district supports staff workshops such as the development of critical thinking skills, creative problem-solving strategies, and self-directed learning techniques. TAG teachers attend staff development classes as indicated by the coordinator and are encouraged to enroll in advanced coursework in the education of the gifted and talented and to apply their credits toward a master's degree program focusing on the needs of these students.

The TAG coordinator is responsible for planning and implementing two programs, one for the academically gifted and another for the visual and performing arts. He administers the budgets for these programs, assists with curriculum development, coordinates professional development opportunities, participates in local and regional organizations in gifted education, and evaluates both the staff and the program. As evidence of the school district's commitment to an appropriate and high quality education for its gifted learners, the TAG coordinator reported that he had adequate financial and material resources to implement the program.

The teachers in the program for the gifted certainly view the coordinator as an expert in the field. They particularly value the opportunities they have to discuss curricular ideas with him and obtain his perspective about the use of different educational strategies with gifted children. While the teachers worked on an itinerant basis, their contact with the coordinator served as an anchor which helped them keep in touch with all issues related to the district and to the more theoretical issues in gifted education.

Atmosphere and environment. The school principal was very welcoming. His detailed explanations of the structure of the TAG program and some of the student activities indicated that he is clearly very proud of the staff and students. Upon meeting one of the third grade teachers, a tour of the school facility was immediately arranged. One of her students volunteered and provided a lively description of the library, lunch hall/gymnasium, and office area. Back in the regular classroom, the approach to curriculum was highly student-centered, using the child's experience as much as possible. For example, some students busily gathered dimensions of each other to make a graph of all height measurements in a mathematics class, while others acquired new vocabulary words by reading the stories written by their classmates.

A child-centered environment was also displayed in the TAG program. In a lesson about creatures of the tropical rain forest, the teacher facilitated a discussion of the characteristics of animals in a jungle environment by relating their features to those of domestic animals, thereby capitalizing on the children's experiences.

> I like a friendly atmosphere. That might sound corny, but I do. . . . I like [it when a child does] not feel threatened to achieve. . . . I would like them to feel relaxed and spontaneous.

What accounts for a supportive learning environment is largely intangible: pride in the academic accomplishments of students, commitment to valuing the learner's perspective, and dedication to an ideal of high quality education. These beliefs, however, might not be enough to overcome the realities of a school's physical structure. Certainly a disadvantage of the Pull-Out model can be the inability of an administrator to reserve classroom space for a part-time program. The type of instructional facility available to the TAG teachers in this district varied from school to school. In one building, a teacher may have enjoyed a well-equipped classroom vacated by an art program once a week and in another situation be assigned to conduct classes behind the stage curtains in the auditorium. Teachers and students overcame these obstacles and used their environment to their best advantage. For example, art supplies were easily available for projects when the class environment was the school's art room and students took advantage of the auditorium setting by staging a variety of plays related to their program.

Communication. Classroom teachers and parents were kept informed about the activities of the Pull-Out program through newsletters and memos about class projects. One of the parents mentioned that the TAG teachers were "good about sending out progress reports." Other parents stated that they were glad to receive updates about the program and

felt that the amount of information was appropriate. The second grade teacher said that she always received thorough information about what was happening in the TAG program. The TAG teacher sent her a list of the topics for all mini-units, outlines of all units, and a list of all objectives. This was seen as really helpful information that enabled the classroom teacher to better understand the purposes and objectives of the program. The third grade teacher believed that she could have benefited from additional information about the weekly activities in the TAG program. She realized, however, that the use of itinerant faculty occasionally placed a strain on communication.

One of the responsibilities of the coordinator was to "Facilitate communication of all aspects of the program to school board, administration, and staff of those schools affected by the program." To accomplish this goal, the TAG administrator scheduled frequent meetings with the teaching staff in order to coordinate the dissemination of information among these teachers, and through them to the whole district. He also writes annual reports about the progress made by the program each year. This information is largely descriptive and includes the numbers and types of services offered to students.

Curriculum and instruction. In this resource room model, the TAG teacher presents material not ordinarily found in the regular school program and employs a wide range of instructional strategies. This is one of the main advantages of this model. The pacing of the curriculum is variable and the topics do not conflict with those found in the regular curriculum.

TAG teachers create their own thematic-based units, including emphasis on content (concept-based), process (thinking skills, discovery learning), product (tangible/intangible), evaluation (teacher/peer/self), and learning environment (student-centered). They incorporate principles of Renzulli's Enrichment Triad Model and a variety of thinking skills strategies into their curriculum. Typical teaching strategies included cooperative learning and creative problem-solving. A curriculum unit about endangered species included the following activities:

> Endangered lands: Debate the pros and cons of living on the beach or the prairie.
> Endangered Waters: Interview an attorney about law suits concerning oil spills. Present your findings to the class.
> Endangered Air: Research and present an explanation of how smog is hazardous to our health.

This unit provided detailed cognitive and affective objectives incorporating Type I (general exploratory topics), Type II (skill development lessons), and Type III (individual and small group investigations of self-selected topics) activities, features of the Enrichment Triad Model. For the "Endangered Waters" section of the unit, students practiced their interviewing skills (Type II activity) by developing a series of questions for an environmental attorney and reviewed steps to ensure a quality interview (e.g., be sure all equipment works properly, don't interrupt the speaker, etc.). They were introduced to the field of environmental law when the lawyer provided an overview of the topic for their class (Type I activity). Some students pursued this activity by conducting an investigation of the effects of oil spills on the local economy of affected populations who lived near the scene of a spill (Type III activity).

A year-long unit for second and third grade students in the TAG program focused on the broad concept of "Change." Cognitive skills incorporated the following objectives: "understanding and accepting change as an essential part of life," "recognizing, recording, and demonstrating changes in the community," and "understanding changes in technology." Among the affective objectives were: "taking responsibility for one's own

learning," "working independently," "developing self-evaluation skills," and "participating in group activities to promote communication skills."

Students were motivated to participate in these TAG units. They were excited about the program and enjoyed its novel and challenging content. They said that they liked "the hard work," "learning about different things," and "discussing things in the program."

Observations of the TAG classroom activities revealed that the teacher for the second and third grade incorporates higher level thinking into her lessons, as demonstrated by the questions and statements she posed to her students in a lesson about endangered species: "Pretend you are John Audubon. How would you explain what is happening to the forests of Brazil"? "How could you explain the four layers of the tropical rain forest using materials that we have in class"? She also tries to provide opportunities for students to demonstrate their artistic and musical abilities. For example, she assisted students in a dramatization of endangered species in the Amazon jungle. Even though the school district has a program in the visual and performing arts, students selected for the Pull-Out program are more academically-oriented, yet they often display artistic abilities as well.

In the regular classroom, teachers asked questions which addressed the ability levels of students. Higher level thinking skills were employed during a typical classroom lesson. Another tool used by classroom teachers to provide differentiated instruction was a computer-driven accelerated reader program. It was located in the library and employed throughout the school. Students selected books according to their reading levels. After reading the books, the students were asked by the computer questions based on the reading level inherent to the book. Teachers also incorporated many of the books into a child's classroom projects.

The third grade teacher has five children who attend the TAG program and another six who she thinks should be identified, but are not. She said that this was an unusually large number of bright children in her class of 19. She tries to challenge all of the children in the class by using an individualized approach to reading and writing. She also organizes her class so that children who are attending the TAG program do not have to make up work when they return to their classroom. This third grade teacher explains her approach.

> Well, they go just once a week [for 2 hours and 5 minutes] and during 40 of the minutes of the time they're gone, we have P.E. [physical education]. That takes care of a big chunk of [time] right there. When they leave, we are finishing our decoding activity and so I try to plan an activity that they don't have to make up. That's the one thing I try to do. When they [TAG students] come back, I take the 5 [students] and I usually let them do independent research in the library as I finish with the other group of 14. . . I try to do things that are fun too, because I don't want the [students] in here to feel left out.

The second and the third grade teachers said that the TAG program had made them look at their teaching to find ways to provide more challenging activities to all of their students. During separate interviews, they both said that the grouping of the gifted students for part of their academic program had a positive effect on the TAG students and also on the other students in their classes. They stated that just working with a smaller number of children who are more closely matched in academic ability makes it easier to plan and implement lessons for them and for the TAG teacher. The second grade teacher expressed more concern about the labeling of the children in her class. She does not want any child to feel that he or she is better than another child. She used to be concerned that if she gave a different type of work to one student, then other students would want to do the different assignment as well, but would not concentrate on their regular classwork. She

has overcome this potential problem by stressing that children have different ways of learning and by incorporating more variety into her teaching. Therefore, when she assigns something different to a few students, such as a more difficult poem to analyze or a more complex story to read, it remains unnoticed by the other students. She really wants to appear very fair to all of the children in her class and provides the following explanation:

> I usually do try to have something that's a little bit more difficult [for the TAG children] because I know they can handle it. I just don't make a big deal out of it, but say, "Okay, you can do this. I know you can." So that's that.

TAG teachers also worked intermittently with the regular classroom teachers to integrate the two curricula. For example, students from the Pull-Out program presented some of their ideas, activities and projects to their classmates. The TAG coordinator and TAG teachers agree that ownership of the gifted program by all school personnel is an important goal. One of the TAG teachers works with three schools at two grade levels and has 37 students in the third grade and 75 in the second grade. This teacher commented how she would like to work with the teachers on a more consistent basis. However, the present schedule makes such arrangements very difficult.

What are the teacher qualifications for working in a TAG program? The state specifies that teachers must hold a valid teaching certificate for the grade levels and subject matter area pertinent to the TAG program. The school district also prefers that TAG teachers have five years of teaching experience in the regular classroom and have some training or course work in the area of gifted and talented education. What do staff members say is the most important quality of a TAG teacher? The answer is clear and unanimous: flexibility. This pertains to meeting student needs and scheduling activities.

Student evaluation uses a letter grade format of *excellent*, *satisfactory*, and *needs improvement*, plus narrative comments. This information is distributed twice per year for the third grade students and after every three-week unit for the second graders. Regarding program evaluation, the coordinator is responsible for annual review of the program and its staff. The content of this report addresses the number and types of activities in which students participate. Units of study are also assessed by the TAG teachers as they review their teaching objectives. This evaluation, however, has not taken the form of a report of the satisfaction with the program as expressed by staff and parents.

Attention to student needs. A major priority of this district is to include students in the TAG program who are from traditionally underrepresented student populations. This intention is clearly stated in the goals for the TAG Program:

1. To provide a learning environment where gifted students from diverse socio-economic backgrounds can investigate and exchange ideas and interact with each other through intellectual activities.
2. To provide a concept-oriented curriculum which stresses interdisciplinary relationships and high level thinking processes.
3. To promote the understanding of individual potential and the awareness of responsibilities of the gifted to self and society. (Program for Gifted Handbook)

The TAG teachers and those in the regular school program stated that they felt the best way to have an appropriate program for students from economically disadvantaged backgrounds is to be aware of the individual needs of all students. Since a student's background influences his or her preparation for school, a teacher should provide

instruction according to a student's entry characteristics and help the student reach his or her full potential.

This model provides students with advanced level concepts through a part-time resource room format. The activities of the TAG classes are presented at a faster pace than those of the regular curriculum. The contents of both programs are occasionally integrated. All classroom environments are student-centered, providing individual, small group, and large group instruction. All teachers enthusiastically promote a child-centered approach to the curriculum and strive to provide a differentiated curriculum for their high ability students that is an integral part of the school program.

Within-Class Program Setting

Riverside is a large urban school district in the Northern Central section of the United States. The diversity of the population is represented by many ethnic groups, the largest being African-American (88%). Nine to fifteen percent of the 171,000 students in the district are identified as gifted and talented. Programs for the gifted are present throughout the 180 elementary schools in the district. The school included in this study is situated in a residential area of the city. A commercial zone begins within a few blocks of the school. The two-story brick building houses students in grades 1 through 6. A visitor is graciously introduced to the office staff and invited to tour the building. It is Black History month and the school halls are decorated with student art and other projects depicting African-Americans who have made significant contributions in the fields of art, music, science, medicine, and literature.

The halls are also decorated with plants and benches placed in inviting arrangements for students, staff, and guests. A central atrium displays several tall plants that reach to the second floor. Students and staff can stop here to read on a bench or take a short cut traveling to another wing of the building. The corridors are brightly decorated with children's work and display slogans about being supportive of others.

The program for the gifted is not marginalized, as evidenced by the bulletin board display of the program model, the Schoolwide Modified Enrichment Triad Program. Indeed, this five-year-old program integrates the Schoolwide Enrichment Model (Renzulli & Reis, 1985) with cluster grouping of high ability students. This model is used with all students, particularly those identified as academically talented/creative in the cluster classrooms. Unlike the "revolving door" approach for the delivery of enrichment activities (Renzulli, Reis, & Smith, 1981), Riverside's program does not incorporate a resource room component. For the purposes of this investigation, second and third grade high ability students who attended cluster classrooms were the sp0ecific focus of the site visit.

Program philosophy and student identification. The selection of students for a talent pool involves the identification of potential for above-average academic performance and/or creative behavior. Students are nominated for the talent pool based on teacher recommendations and ability test scores. A predetermined cut-off score is not strictly employed because each year brings new students and a new combination of characteristics. Additional data were collected through the following methods: teacher ratings of student learning, creativity, and motivation; parent observations; student grades; achievement test scores; and a statement of personal achievements presented (written or drawn) by the student. A school assessment team selects the group of students identified as gifted and talented.

A Within-Class program provides services for its high ability students in a regular classroom setting. This district clusters the gifted students in two classes per grade level in

order to assist instructional planning and implementation. A cluster class in this school has approximately one-third of the students identified as gifted. The major advantages of this model include increased opportunities for gifted students to be with their intellectual peers, integration of students with a range of ability levels in one classroom, and designation of a teacher to have primary responsibility for providing appropriate instruction for the gifted students (Hoover, Sayler, & Feldhusen, 1993). This model has been reportedly quite successful (Hoover, Sayler, & Feldhusen, 1993).

In this district, teachers in the cluster classrooms are not initially told which students have been identified for the talent pool. The philosophy behind this provision is to establish high expectations for all students and to raise their performance on a consistent basis. One third grade teacher asserted, "My whole purpose here is to take the child where he or she is and move them [*sic*] along as far as they [*sic*] are able."

All classrooms in the school employ the Enrichment Triad Model (Renzulli, 1977). This model is based on three types of activities. Type I activities introduce students to topics not normally found in the regular school curriculum such as creative dramatics, photography, robotics, and astronomy. Type II activities develop skills in areas such as oral and written communication, advanced research, problem-solving, and decision-making. This program emphasizes "the teaching of cognitive, social and affective skills that will improve attitudes toward self and others; increase complex thinking; and help students become independent learners" (Modified Enrichment Triad Plan, p. 1). Type III activities are individual and small group investigations of topics where the student behaves as an "expert" in a given area.

Type I and Type II activities were emphasized for all students. Teachers in the cluster classrooms easily described examples of ways in which they integrated these skills into their classes. Type III activities were less frequently pursued. The third grade teacher was able to describe one student's independent writing project.

Leadership. The instructional and administrative leader of the program is the district coordinator of the gifted and talented (G/T). She strives to bring quality education to all children in this urban school system and has required that every teacher in an Enrichment Triad Model school be trained in the model and use the techniques in their classes. The coordinator provides mandatory training for all teachers in schools where the model is implemented, brings innovative instructional ideas to the staff, and seeks a variety of funding sources for the district through local, regional, and national awards.

In addition to presenting at least Type I activities to all students in their classes, teachers are to demonstrate the following: improved attendance of students in the cluster classes, increased involvement of parents in the school, and increased academic performance for talent pool students. Teachers are also expected to promote collaboration among students by developing and displaying classroom goals, a class pledge and a class name. Within this program, students are continually encouraged to demonstrate ways in which they care about each other. A data collection schedule is provided for the staff who are expected to document their progress in fulfilling these objectives.

In addition to specific objectives, teachers are provided with a list of recommended characteristics. "The 'ideal' cluster teacher":

1. differentiates curriculum in terms of content, process, product, and environment;
2. is well organized, curious and open to new ideas;
3. sets consistent, clear guidelines for behavior;

4. has well developed classroom procedures and teaches these procedures to students;
5. arranges for collaborative/cooperative learning experiences;
6. fosters the development of freedom-with-responsibility;
7. provides opportunities for choice-making and independent learning;
8. helps students understand the practical applications of their daily learning experiences;
9. understands and utilizes the concept of shared decision-making and independent learning;
10. reserves time for personal reflection and study; and
11. actively encourages parent participation.

To assist in attaining these goals, teachers have ongoing opportunities for professional development and are encouraged to enroll in an introductory graduate-level class about the gifted and talented. They are also provided with resources to enrich their classroom environments and are supplied with additional funds for implementing the model. To assist with this implementation, teachers receive written materials to be included in a handbook about differentiated curriculum for the gifted.

Atmosphere and environment. What do teachers consider to be an ideal learning environment? It is a place where students feel they can receive reinforcement for their efforts to learn. To demonstrate this, a second grade teacher noted the appropriate behavior of students in her class by remarking, "I do appreciate and support all people who are making good decisions." Students at all grade levels are encouraged to use hand signals to show their general support for or disagreement with the responses of others. For instance, displaying a "thumbs up" gesture signifies agreement, "thumbs down" means no, a shrug of the shoulders indicates lack of certainty, and raised arms with wiggling fingers indicates support. In addition to this quick, quiet way to respond to their peers, teachers want their students to feel as though the classroom is a safe environment to try new things, make mistakes, and learn new skills. Thus students are learning to be tolerant of others' ideas and to listen to new concepts. For example, after one young boy provided an incorrect answer to a question, a classmate remarked to him, "Oh, we support you for doing that." Students feel free to make these types of comments as teachers encourage them to do so. The third grade teacher said, "I want them to feel low risk. . . . I want them to feel free to express themselves. . . . I want them to see me as the teacher who wanted them to become the best person that they can become." The second grade teacher also encourages students to express their ideas. She comments, "I really like a nurturing environment. . . . It's okay for you to be wrong, let's just try anyway."

Students enjoy having control over a situation and teachers model positive ways to influence the environment. Thus, teachers and students use different clapping or chanting rhythms as they work in the classrooms. In one instance, when a student felt that the noise level in his class was getting too high for him to concentrate on his assignment, he started clapping in a specific rhythm. Soon, all students in the classroom were clapping. When the boy who initiated the signal stopped, everyone else stopped and went back to work. The room became noticeably quieter. On another occasion, students were led in a chant by their teacher to put their supplies away while getting ready for lunch.

Taking control also means being able to make decisions that will have an impact on the future. The schoolwide program promotes the concept that the children can become whomever they believe they can become. A week-long careers program featured 72 guest speakers who explained their jobs and the education and skills necessary to enter the targeted career. This represents the Type I activity of introducing new topics to students.

Communication. At the beginning of the school year, all parents are given a guidebook about the Enrichment Triad Model explaining the purpose for the program, the selection process, the types of activities offered, and a reading list for children in grades 1 through 6. The utmost importance of reading to and with children is a vital message sent to parents. They periodically receive recommendations for books and reminders about this fundamental activity. Two such messages reminded parents to take books when traveling and to take books to restaurants.

Communicating with parents and obtaining their support for the program is of primary importance. Toward this end, teachers are responsible for fulfilling the objective of involving 80% of the parents in some type of school-related activity each year. This objective is assessed through a parent involvement log kept by each teacher. Parents or family members are recruited to become mentors to students within the school, to volunteer as classroom assistants, to attend field trips, or to make arrangements for classroom activities, such as guest speakers. In order to organize the parental involvement component of the school, parents are provided with a booklet including a volunteer interest survey, recommendations for working with children, and suggestions for encouraging children to read. Home-school partnerships are highly valued. The district conveys the message that". . . parents who are involved in their childrens' classroom have a positive effect upon the motivation of the child to succeed in school."

A 1990 evaluation of the program showed that only 48% of the parents were actively involved with the school program. This statistic caused school personnel to survey parents about the reasons for their lack of involvement. Parents who responded to the survey indicated that they were unable to participate in school activities due to other obligations during the school day. To involve more parents with young children in these activities, the program evaluator suggested that child care could be offered to parents participating in school functions.

In addition to communication with parents, there is also a strong connection between the program for the gifted and talented and the regular school program. Teachers who do not work directly with the high ability students are also trained in the Schoolwide Modified Enrichment Triad Model and encouraged to provide a supportive atmosphere for all students.

Curriculum and instruction. The curriculum is based on the state and local guidelines and requirements. Teachers are not required to use any particular textbook. They report using a combination of written and visual materials, such as text books, library books, magazines, videos, newspapers, etc. An important goal of the curriculum is to assist students in becoming independent learners. Teachers employ activities that encourage students to design their own responses to open-ended projects and to control their own schedules. For example, when the third grade students entered their classroom in the morning, a list of five activities was written on the board.

1. Write in student journals, "Be a peacemaker because. . ."
2. Complete next spelling assignment
3. Proofread paragraph from yesterday and complete your parent invitation
4. Complete your math check
5. Make a character web

The teacher explained each task and the students busily moved about the classroom, getting appropriate materials. Student desks are grouped in sets of five or six, yet the children make their own choices as they complete each assignment individually, in pairs, or in groups. They progress through each activity at their own pace. The teacher checks on their progress as she walks around the room asking questions such as "How many tables

are working on the parent invitation?" They can complete the activities in any order as long as they are completed by 11:00 am. The teacher casually interrupts the class to announce when a table is working well. She also announces to the students when a table of students has a particular problem and how it is being solved. For example, one group of students is working on the parent invitation to a social event at the school. The group is having difficulty reproducing the design that the group of students had selected. The teacher assures the group that doing the best that they can will accomplish the task. Since students are given assignments to complete within a certain time, they feel free to complete them in any order and to talk with other students about their progress. The teacher sees this as a positive, student-centered environment and encourages students to discuss their work with their peers.

Later that day, a student showed a display she made about Africa during her free time at home and at school. She had selected a picture of some African flowers, a picture of one of Africa's countries, and she wrote the word "Africa" in colors to match the picture. After she finished explaining what she had read about the continent, students in the class asked her questions about her work and complimented her on her effort, the color coordination used in her display, and said that she used her free time well to do something she liked. One student said, "Maybe people in this class will now do things on their own."

Teachers encourage children to practice independent and collaborative learning strategies. Teacher presentation styles include: group, individual, and collaborative learning techniques. In this school, collaborative learning means that students support each other's ideas, help each other to understand concepts, and sometimes work in small groups of four to six students to complete projects. Group sizes change constantly and are formed in different ways. Sometimes the group formations are random, sometimes the students select individuals with whom they want to work, and on other occasions the teacher purposely assigns students to groups based on specific criteria, such as reading level, or common interest in a topic.

As a visitor looks around the classroom, students work in small groups, on their own, or in pairs. For instance, in groups of five, they try to list five proper nouns for a person, place, and thing. The assignment also requires them to form their groups, select a leader, a timekeeper, a reporter, and a group evaluator. Groups were easily formed. It appeared that students selected group members according to who their friends were. (This was later confirmed by the teacher.) Students throughout the class discussed their task. In one of the groups, a student stated that a "chateau" was a place. Another student located this word in the dictionary and proceeded to tell his classmates names of chateaux by opening his remark with, "May I have your attention, please. . . ." Students reported being comfortable with this environment. "I can work and help other kids. We get together in groups to help each other."

Teachers also modify the content and pace of the curriculum. The teacher in the third grade said that most of this year's class entered her room with mastery of some of the basic objectives. She knew this for certain because she had administered several pretests at the beginning of the year and now directed her energy toward teaching concepts which the students had not yet mastered. This instructional strategy, called curriculum compacting, is used throughout the cluster classrooms. A teacher explains this concept, "If they already know, for example, how to add with the carry and borrow in subtracting, it would not be to my benefit [nor] theirs to spend time going over what they already know." Much of the time, the pace in the class is faster than for an average class and nongifted children are encouraged to keep up with their gifted peers. If, however, only a single student or a small group requires additional assistance with a basic skill, teachers use a variety of resources to

accommodate the student learning rates. For example, parent volunteers, tutors, and classmates collaborate with the children to improve their skills.

What happens to students when they are promoted as already having mastered the standard curriculum? How do teachers view this type of advanced pacing?

> I don't think that's a problem because the fourth grade teacher will do exactly what I have done. She will. . . do some compacting to see where she has to begin. . . . It would not be the right thing to do to go over what they already know. It would be boring. It would be wasting their time. So the fourth grade teacher. . . would be equipped to make provisions, adequate provisions to challenge the students where they are.

The third grade teacher reports that using this model has boosted almost everybody in her cluster class above grade level in mathematics. High expectations for all students and appropriate support for progress make this a successful program. The children are expected to work at their ability levels and encouraged to explore higher level content.

When asked if there had been any improvements of her child's achievement in school, a parent of a second grade student replied that this was indeed the case because her daughter is reinforced in school for her ideas. Another parent of a third grader said, "It [the program] helps to motivate him. [For example,] He wrote a song and the others sang it." This performance pleased the student immensely and increased his confidence in his artistic ability. Students also notice that hard work can lead to satisfaction with accomplishments. "I like to work hard and do things I never did before. The easy [stuff], I don't like. I want to learn something I never learned before" (grade three).

What are the characteristics of a teacher in this program? The interviewed faculty members say that the most important teaching qualities are flexibility and organization. These teachers are constantly trying new techniques. If they do not work out, they modify the idea and use it as a learning experience. As one teacher indicates, "You have to be a risk taker. . . . You have to be constantly searching out ideas and new things, keeping current, and reading. . . . You just can't be a real rigid person." This same teacher continues to describe her attitude toward learning:

> You can't have a closed mind and say the way that I taught in the past is the best way. You should have a learning attitude that you always can obtain a new vision in the way you teach as long as it's going to help children. . . . I want to better myself. . . to try these new techniques and strategies in teaching.

Student evaluation is ongoing and paired with positive, encouraging comments. Traditional letter grades are reported and teachers provide brief comments. Formal assessment of the program occurs as teachers compare their progress with the program objectives. The coordinator also systematically collects data from students, parents, teachers, and administrators about the cognitive and affective outcomes in the cluster and non-cluster classrooms. In addition, the Department of Research and Evaluation for this city's public schools also monitors the academic achievement of students in this program.

Attention to student needs. The statement of philosophy in this district's handbook includes the commitment to identify gifted and talented students "regardless of their possible cultural differences, underachievement, handicaps, and low income status." The G/T coordinator oversees the identification process to ensure that all qualified students are afforded the opportunity to be selected for the program. Once students are assigned to the cluster classrooms, teachers said that they try to focus on the individual characteristics

of all students in order to assist those who are not performing to their potential. One teacher found that she needed to be accepting of the non-standard English used by many of her students from low income environments. She wanted to show them that she valued their way of speaking and she wanted to model standard English for them. She explained to students that there were certain circumstances when they would want to say things in a different way. In another example of valuing a student's culture, the life stories of famous individuals are investigated by students, particularly during Black History Month. Teachers reported that they do not consciously think about whether or not a student comes from a low income background. They just focus on the individual characteristics of all students. Parents appreciate the individual attention given to their children, as indicated by the following remarks.

> The teachers understand his strengths and weaknesses, they understand why and how he learns.
> This is what every school should be doing.
> [With this type of program], parents can see the motivation in their own children.

The grouping arrangement used in this Within-Class program was based on clustering students identified as gifted and talented in two classes per grade level. Approximately one third of a class were G/T students and the remainder were above-average in ability. The curriculum operated at a faster pace than that of the regular school program. Based on a Schoolwide Modified Enrichment Triad Model, the program offered enrichment opportunities across all subject areas. Teachers also promoted collaborative learning through shared decision-making. Parental involvement was actively sought in order to establish a strong link between the school and the community.

Research Question #2: What are the key variables consistent across all four program types?

An examination of the five themes (leadership, atmosphere and environment, communication, curriculum and instruction, and attention to student needs) revealed that there are consistencies across all programs, leading to recommendations for program development and implementation.

Leadership. In an "exemplary" model, there is a strong administrative voice to represent and implement the program for gifted learners. This individual oversees the development of long-term goals and objectives and communicates this information to everyone in the school community. Such leaders ensure that staff and community members fully understand and support their program.

Atmosphere and Environment. An accepting atmosphere throughout the school promotes a positive attitude toward the program for the gifted and talented for all who are involved, e.g., students, parents, teachers, and administrators. In these programs, students are comfortable with their educational and social environments. Staff members are given the time, materials, and training to address and meet the needs of gifted learners.

Communication. Clear and frequent communication is maintained between parents, teachers, students, and administrators regarding the program. This is accomplished through both general strategies (i.e., newsletters) and individual contacts (i.e., phone calls). These communications include information about program activities and provide commendations as well as recommendations about student performance.

Curriculum and Instruction. Teachers are flexible in matching both curriculum and instruction to student needs. They employ a variety of instructional techniques to complement student characteristics. As a result, the students feel that they are appropriately challenged. For example, there is a great endeavor to match the pacing of the curriculum with the student's ability in a given subject.

Attention to Student Needs. Academic staff and administrators are committed to serving students from traditionally underrepresented populations. They take assertive roles in selecting these students for their programs. Staff are also sensitive to the needs of these students once they enter the programs.

Such factors are to be found in any "exemplary" school program. Literature about successful schools and school reform often consider the themes that emerged from this study: leadership (Simmons & Resnick, 1993), learning environment (Clark & Astuto, 1994), communication with families (Comer, 1991; Vandergrift & Greene, 1992), curriculum and instruction (Joyce, 1991), and attention to the individual needs of students (David, 1991). What makes the school programs in this study different from those considered in the general literature is the focus on a specific population of students, those with high ability.

Research Question #3: What are the influences of such "exemplary" programs on student achievement and motivation?

Parents, teachers, and students agree that two influences on student achievement and motivation involve exposure to challenges and choices. Challenges are provided through high level content and pacing of the curriculum. Techniques such as curriculum compacting are used to present topics at an appropriate, more advanced level. One teacher in a Special School program said, "the grouping itself is a motivator since students can progress at a fast pace and they can work with each other to succeed." Corroborating this remark, a parent at the same school noted that her daughter. . . likes the fact that she is in a class with other students who are on the same level." A parent whose child attends a cluster class for a Within-Class program said that she can see the improvement in her daughter's motivation since she started the program. This parent noted, "It's not the same old curriculum all of the time. . . . I've noticed [my daughter] write more and more stories. . . . The program improves her study habits. It lets her explore."

Students feel they are motivated when they are challenged, as a fourth grade teacher explains,

> We had an interesting discussion yesterday. It came up during math class where the kids were talking about. . . looking forward to finishing [a new math book] and going on to some more advanced topics which I have told them we'll be working on. They talked about how they enjoyed math this year and how boring it had been in the past. And then their discussion generalized to their classrooms. . . before they came here. They said that very often work was really easy and there was nothing for them to do and they felt different from the rest of the class because they could do it really easily and then there was nothing.

His opinion after 24 years of teaching students with a wide range of ability levels is that when they enjoy what they are doing and are rewarded for doing well, they will be successful.

Becoming self-motivated to achieve is easier for some students than for others. To assist with this goal, teachers also provide many opportunities for students to make their

own choices and to gain control over their learning environment. This conclusion was also presented by Ireland, Clegg, Sankar, Kathnelson and Gray (1993) in a study of student perceptions and instructional practices in programs for the gifted.

Research Question #4: What distinguishes the "exemplary" representative model in terms of its ability to serve diverse populations of students?

These "exemplary" models in gifted education addressed the needs of diverse populations of students in three main ways. First, all selected programs focused on the identification of underrepresented populations of students in their written policies. Specific populations included those from diverse cultural groups, the physically challenged, those with limited English proficiency (LEP), underachievers, and the economically disadvantaged. They took assertive roles for selecting these students for their programs through the standards they set for student identification. Programs either did not have strict cutoff scores in their procedures (Special School and Within-Class) or when they had cutoff scores, they included qualifying statements (Separate Class and Pull-Out) such as the following: "A student that does not meet one of the stated requirements may be considered by the selection committee if adequate justification is presented by the nominating party." The absence of strict cutoff scores allows students who do not do well on standardized tests a greater latitude when being considered for participation in a program.

Second, by focusing on the individual needs of all students, teachers took into consideration specific characteristics related to these diverse populations of students. These characteristics included the use of non-standard English and limited educational experience. As one teacher remarked,

> . . . . You have to look at each person individually and each person's background. . . . It's just a matter of respecting kids first of all, and working with them. If you don't understand the language they use, if you don't understand their daily experiences and what things they are familiar with and not familiar with, you can't work with them effectively.

Addressing their characteristics means adjusting the pace of the curriculum to the student's rate of learning and providing the child with many new experiences.

Third, parental and community involvement are seen as vital to the success of the program and to each child's education. This home-school partnership is highly valued, as can be seen in one district's message to the family,". . . parents who are involved in their children's classroom have a positive effect upon the motivation of the children to succeed in school." How do parents and community members become involved in the school? They work in such capacities as mentors, class assistants, and special presenters. To establish these patterns of involvement, district coordinators invite parents to school events, distribute questionnaires about potential family interactions with the school, and keep parents informed about their child's educational program. These interactions communicate to parents that they can actively contribute to the education of their child as well as provide opportunities for children to observe appropriate adult role models.

CHAPTER 5: Summary and Recommendations

The Learning Outcomes Study was a nationwide longitudinal investigation of 1,010 elementary school children who had just entered programs for gifted learners in grades 2, 3, and 4 when the study began. The primary purpose of the project was to assess student changes during their first two years across four types of program arrangements: Within-Class programs, Pull-Out programs, Separate Classes, and Special Schools. These types of programs were selected because they are the most frequently used classroom arrangements nationwide (Gallagher, Weiss, Oglesby, & Thomas, 1983). The Learning Outcomes Study was extended by adding a qualitative dimension focusing on an "exemplary" model from each of the four program types. These programs were identified and studied with the intention of providing educators and policy makers with valuable information on how these programs were perceived and implemented. This study was not intended to determine whether one type of program was better than another, but rather to fully comprehend the prevailing circumstances that influence the impact of a certain type of programming arrangement in a given community.

The purposes of the qualitative study were threefold: (a) to formulate a system for selecting "exemplary" program models; (b) to further contribute to the knowledge base of gifted education by conducting in-depth examinations of outstanding elementary school gifted programs; (c) to examine ways in which outstanding programs address the needs of students from diverse cultures. All three objectives were fulfilled. Through the program selection process, two evaluation tools were created, the Program Profile Forms (see Appendix B) and a set of Program Satisfaction Surveys (see Appendix D). The forms are useful for documenting the key components of a program. They can be used to design a model or to compare several programs. Four versions of the Program Satisfaction Survey were created for students, parents, teachers, and administrators. They contain parallel items which enable an evaluator to compare responses across similar concepts.

The proposed benefits of this project also included a profile of four types of programming models commonly employed in gifted education, and specific criteria for assessing program models (also see Reis & Renzulli, 1984; Shore et al., 1991). In addition to descriptions of each program's setting and general procedures (identification process, curricular options, staff selection, school demographics), program profiles included the following five criteria: leadership, atmosphere and environment, communication, curriculum and instruction, and attention to student needs. All selected programs addressed the needs of diverse populations of students in three different ways. First, all selected programs focused on the identification of underrepresented populations of students in their written policies. Second, by focusing on the individual needs of all students, teachers took into consideration specific characteristics related to children from traditionally underserved populations. Third, teachers and administrators stressed parental and community partnerships with schools, thus encouraging families to become involved with the education of their children.

Summary of Four Program Types

Four districts have been identified as "exemplary" school programs in gifted education. The Special School is located in an urban area in the Northern central section of the country. Its students are homogeneously grouped on a full-time basis in a building designated for the gifted and talented. Students in the Separate Class program are from a rural community in the Southwest. They receive their instruction in homogeneous groups

for all content-area courses and are housed in schools with students not identified as gifted and talented. The Pull-Out program is implemented in a rural town of the Southeast. Its participants attend a resource room for two hours each week with curriculum based on interdisciplinary units and independent study. Located in the Northern central section of the country, students from the Within-Class program attend heterogeneously grouped classes 100% of the time. Differentiation of the curriculum is achieved using cluster grouping, independent study, as well as creative and affective enrichment activities. All programs have goals pertaining to both academic and affective outcomes. Their instructional techniques are tailored to the needs of high ability learners. A more detailed account of each program's demographic features can be found in Appendix A. All curricular options are listed in Appendix B.

Each district requires that teachers have specialized training in the characteristics and needs of gifted learners and encourages their staff to complete graduate courses on topics such as creativity, characteristics of the gifted, and thinking skills. All districts state that they provide ongoing staff development for teachers who work in their programs for gifted students.

For the Special School, addressing the needs of students from diverse cultural and economic settings is a clear priority. Its teachers believe that in order to work effectively with students, they must be well acquainted with them and adapt the curriculum accordingly. Indeed, there may be as many as five instructional levels per class, making it paramount for teachers to adjust the curriculum to their students' needs. The administration and the faculty feel that an enriched educational program expands the knowledge of students in preparation for their future academic and career choices. This program is made possible because of the impressive commitment of all staff members to the philosophy of the school. It is the very ingenuity and creativity of administration and faculty which create an obviously exciting educational environment. However, this stimulating environment also makes staff reluctant to leave the school, creating a low faculty turnover rate. This could be seen as a negative aspect, a hindrance to faculty interactions with other teachers. The instructors also report that they are somewhat disturbed by the public's perception of their job as easy because they teach in a school for gifted students. School personnel try to convey to the public their pride in the program they have developed and maintained for a very diverse group of students.

The Separate Class program is located in a small community whose members promote traditional values for their children. They are concerned about how well the students learn basic skills and they want them to obtain at least a high school education. The program for the gifted and talented serves to expand the regular school curriculum by offering a Separate Classroom program with an enriched curriculum presented at a moderate pace. The teachers explained that it was a challenge for them to incorporate the objectives for the gifted and talented program into the framework of the required skills and testing procedures of the regular curriculum. All teachers used texts adopted by the school district for their grade levels, and competency tests in reading, writing, and mathematics are given every quarter. The results of these tests are used by the teachers to adjust their instruction based on student strengths and weaknesses. The academic staff are accountable for attaining specific standards with the entire class. The G/T teachers reported that most students do very well on the tests. However, this form of evaluation caused concern among the faculty about the pacing of their instruction in order to match the exams. They wanted to ensure that their students learned and reviewed the skills being tested, but they also wanted to supply an enriched curriculum that motivated the class.

The Pull-Out program provides students with advanced level concepts through a part-time resource room format. The activities of the Talented and Gifted (TAG) classes are presented at a faster pace than for those of the regular curriculum. The contents of both classes are occasionally integrated. All classroom environments are student-centered, providing individual, small group, and large group instruction. All teachers (TAG and regular classroom) enthusiastically promote a child-centered approach and strive to provide their high ability students with a differentiated curriculum that is an integral part of the school program. Some instructors do not feel sufficiently informed about the content of the gifted program, but they strongly agree with the philosophy of educating gifted students in a resource room program. The TAG teachers are itinerant. Each elementary level teacher is assigned two grade levels across three schools. Instructional facilities available to TAG teachers in this district vary from school to school. In one building, an instructor may enjoy a well-equipped classroom as vacated by an art class once a week, and in another situation be assigned to conduct classes behind the stage curtains in the auditorium.

The grouping arrangement used in this Within-Class program is based on clustering students identified as gifted and talented in two classes per grade level. Approximately one third of a class are G/T students and the remainder are above average in ability. The curriculum operates at a faster pace than that of the regular school program. Based on a Schoolwide Modified Enrichment Triad Model, this program offers enrichment opportunities across all subject areas. Teachers also promote collaborative learning through shared decision-making. Parental involvement is actively sought in order to establish a strong link between the school and the community. Unfortunately, teacher efforts at encouraging parent participation in the school have not met the expectations of the program administrator.

An analysis of certain program characteristics revealed that the five themes consistent across all four program sites provided the basis for formulating questions which parents and educators could ask about their own program for the gifted and talented. These questions appear in the following section.

Recommendations

This section provides parents and educators with a series of questions they should ask about any program for the gifted and talented if they are to gather information on program practices. Each set of questions is followed by comments in order to guide decision-makers in creating or improving their own programs for gifted learners.

What Should Parents and Educators Ask About Their Elementary School Gifted Programs?

Leadership

Who among the school district's administration is an advocate for this program within the school system and the community? Successful programs are characterized by at least one strong voice. Supportive teachers and parents have a crucial role, yet they are often not as influential as a school administrator in representing the program to other administrators, school personnel, and community members. This individual may be a specially trained coordinator for the gifted and talented, a superintendent or associate superintendent of the school district, a principal or assistant principal or another type of administrator. As noted in a review of practices in gifted education, the coordinator does not automatically need to serve on a full-time basis (Shore et al., 1991).

How supportive of gifted education is this administrator? He or she should be a strong advocate of gifted education, able to effectively represent the needs and characteristics of gifted and talented students to the community at large and to key groups of decision makers within the school district.

How long has the program been in existence? What type or types of programs are being implemented in the district (Special School, Separate Classroom, Pull-Out program, Within-Class program, other)? How long have these programs been operational? If the program type has changed over time (e.g., a Pull-Out program that becomes a Within-Class program), why did this occur? One indicator of an effective program is not necessarily the number of years it has been in existence, but the effort made by the administration to turn the program into the most appropriate model for meeting the needs of the students. A program that has changed its focus by changing the format and activities offered to students may either be indicative of a staff that wants change for the sake of change, or one that is attentive to the needs of its clients. Investigators should ask why the change occurred, how the need for change was determined, and how the changes are being monitored. The most effective programs have a comprehensive evaluation design in place (Tomlinson & Callahan, 1993). A copy of the program description including the evaluation plan should be available to the public. Appendix B of this chapter provides a format for listing the key features of a program profile.

What are the decision-making processes for implementing and revising the program? A program administrator should be able to explain the processes in detail. This includes teacher selection, program development, student identification, curriculum implementation, and program evaluation. Parents and teachers should be involved in planning activities related to the program in order to promote ownership among staff and community members (Reis, 1983).

What types of teacher training or staff development are provided in your district? Are these optional or required? Staff development regarding the needs of gifted and talented students should be a requirement for *all* faculty members. Additional training should be provided to staff working directly with the targeted students throughout the school such as in the regular classroom or the library.

How are staff members selected to teach in this program? Are there state or local guidelines? Is certification required for teachers of the gifted and talented? Guidelines for teacher preparation at the state or local levels make it easier for districts to select qualified personnel (Gallagher, Weiss, Oglesby, & Thomas, 1983). Teachers should be selected according to their knowledge of the curriculum, their experience in addressing the needs of high ability learners, and their interest in working with this type of exceptional student (Passow & Rudnitski, 1993). The extent of the training considered acceptable to produce qualified personnel varies from the completion of a few core courses in the education of G/T learners to that of a Master's degree in the educational psychology of the gifted and talented. Some form of theoretical and practical experience is recommended prior to working with such students. "Exemplary" teachers report that they are involved in ongoing educational training through their school staff development programs and through their own initiative.

Atmosphere and Environment

What kind of classroom atmosphere is developed? The notion of "atmosphere" encompasses the entire school environment. An inviting environment promotes a positive attitude toward the school and the program for parents, teachers, students, and administrators. This is not accidental. Staff members need to be given the time, materials,

and instruction to create an integrated school atmosphere. For example, in order to promote learning as an ongoing activity, role models from the community could share their interests and talents with students. Teachers also set the tone for the perception of the gifted children by their peers. They specifically avoid labeling a child and provide them with differentiated activities as they would with any child in their classes.

What impressions and concerns do parents, teachers, students, and administrators have about the program? A random selection of these individuals should reveal positive attitudes toward the program (Delcourt & McIntire, 1993; Feldhusen & Sayler, 1990). All staff members, students, and parents should be informed about the program and should also feel that they can always obtain additional information whenever necessary. The program should not be viewed as a luxury, which receives support only when there is extra money in the budget. This means that teachers of the gifted and talented should have the appropriate materials and facilities to implement their curriculum.

Communication

To what degree are staff members involved with the program (principal, librarian, school psychologist, fine arts teacher, etc.)? All staff members should be well informed about the program and receive training in the characteristics and needs of gifted and talented students (Reis & Renzulli, 1984). This information should be deemed as important as that concerning the needs of any exceptional child. School personnel should also be involved in program planning whenever their expertise is required. They can serve on student identification committees and contribute to curriculum planning. For example, the librarian can provide valuable information by training the students in advanced reference skills, a lesson on map-making can be coordinated with the fine arts teacher, and an advanced science class about the effects of exercise on the body can be taught in conjunction with the school nurse or a local physician.

How do teachers communicate with each other about the program? What type of communication is established between the parents and the school? Clear and frequent communication between all members of the program (parents, teachers, students, administrators) must be maintained. General communication systems (newsletters, progress reports, large group meetings) and individual contacts (phone calls, conferences) should be employed. Communication with parents should include commendations as well as recommendations. This is especially important to those parents who often receive information from the school only when a child has done something wrong.

Curriculum and Instruction

What are the needs of the high ability students? How are these needs addressed? How is that process different from addressing the needs of other students in the class or school? Which particular strategies are used? Gifted and talented students have specific characteristics and needs which require the implementation of educational strategies that are different from those concerning their same-age peers. The teachers who work with these students recognize these characteristics and are experienced in providing differentiated curricular activities. For example, an ability to process information more quickly indicates that a child needs less time and fewer repetitions to understand concepts. Indeed, a student so identified may have mastered content prior to its being formally introduced in the classroom. Teachers of the gifted and talented find it an absolute necessity to make changes in the content and pacing of the curriculum in order to appropriately challenge students and to make the most effective use of everyone's time.

Which educational model has been chosen for implementation in the school and classroom? How is this achieved in the school? In the classroom? How does this model influence teaching practices? How does the use of this model differ from the curriculum and instruction used in a classroom not employing this model? Many programs for the gifted and talented are based on educational systems and models that incorporate content, strategies, and administrative designs developed specifically for high ability learners. These models should provide programs that are clearly different from the regular curriculum. The differences should not be seen as special privileges for the gifted and talented, but as appropriate educational decisions.

What influence does this program (e.g., Special School, Separate Class, Pull-Out, Within-Class) have on student achievement, motivation, self-concept, and creativity? Programs should focus on both cognitive and affective outcomes for students (Shore et al., 1991). Achievement, motivation, self-concept, and creativity are some of the key elements included in goals, objectives, and the evaluation plan.

What type of evaluation procedures are used in this particular program? All programs should have explicit procedures for evaluating student progress. The evaluation design should be directly related to the program goals and objectives (Hunsaker & Callahan, 1993; Tomlinson, Bland, & Moon, 1993).

What do you think it takes to be an effective teacher in this program? All teachers agree that the most important teaching quality is flexibility. This means that they are aware of the many ways their students view and approach specific challenges in the classroom. Flexibility also means that teachers need to plan curricular activities that fully address the abilities of their students and are integrated in the short-term and long-range educational plans of the school district. For instance, specific learning outcomes determined by the state and local school boards may be achieved at a faster pace, thereby creating the need for alternative curricular approaches such as acceleration and enrichment. Highly creative students require a variety of outlets for their talents (e.g., art, music, dance, humor) and, of course, time for thinking.

Attention to Student Needs

How do you address the needs of students from culturally diverse and economically disadvantaged backgrounds? These particular groups have been noticeably absent from many programs for the gifted and talented. In order to remedy this situation, identification procedures and program activities must focus on the unique characteristics of individuals from diverse cultural groups. Whether a school district has one dominant racial/ethnic group such as African-American or Hispanic students or a number of subgroups represented in its population, the program for the gifted and talented should have a plan to actively recruit these students and to provide activities to address their specific needs.

How are individual expression and creativity viewed? How do students express their interests? What is the focus of the program with respect to a student's affective needs? How are the children challenged within the program? How is this ascertained? What is the philosophy concerning student learning styles? Teachers should incorporate their students' interests into each subject. The children should be encouraged to express their ideas and to expand their thinking. Since they reported that they were most comfortable when their educational *and* social environments were positive, they should be given opportunities to feel challenged by academic rigor and to develop friendships with peers who share interests similar to theirs.

By referring to these five themes and related questions, one will gather a significant amount of information about any program for the gifted and talented. Responses to the questions can then be organized on a program profile form such as that in Appendix B. Of course, the program profile form can be revised to accommodate additional topics.

Limitations of the Study

According to Campbell and Stanley (1963), the validity of every research design is susceptible to both internal and external threats. In a field research design (Isaac & Michael, 1984), the selection of fewer subjects decreases the possibility that the sample is representative of the population. Although the qualitative research design does not accommodate for this limitation, it allows for an in-depth view of the phenomenon under investigation. For this particular project, the programs were selected from a small pool of districts and selection decisions were based on each district's willingness to fully participate in the project.

The schools which agreed to participate in this project were selected from a pool of sites already engaged in a longitudinal study of cognitive and affective learning outcomes. They had been involved in this work for one year when the districts were selected and for two years when the data were collected for the present study. The close connection between these studies enabled the researchers to employ the results of the cognitive and affective scores of students in the selection of an "exemplary" program. While this was extremely valuable information, districts were reluctant to give consent for the qualitative study because they anticipated that participation in two studies would involve too much time on the parts of students and staff members. Therefore, the fact that both projects were closely connected was both an asset and a liability.

Methods of data collection and analysis also threaten validity. With regard to data collection, the choice of quantitative instruments and qualitative measures limit the type of data gathered, the form of the responses, and the degree of objectivity in interpretation. In addition, the responses during all interviews were restricted by the source's retrospective abilities and clarity of ideas. Responses were also confined to the particular point in time at which they were collected. This reduces generalizeability.

Bias may also enter the analysis during data interpretation. Appropriate coding and classification of the data strengthen the formation of consistent and accurate records. Additionally, data codes and analyses were checked by an expert in the field of evaluation and gifted education. Another limitation in qualitative research is replicability. While this is due to the specificity of the sample, a precise description of the research design and methodology provide a strong foundation for developing a close approximation. Finally, the conclusions and recommendations from this study may not be applicable to programs which do not already originate in one of the four programming arrangements described in this report.

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Appendix A

Program Demographic Information

Program Demographic Information

Code	Grade Level 1990-91 1991-92	Program Type	% Of School District Served In Program	% Of Ethnic Groups In District/ % In Program	Type of District, Total Population, and Size
A	2/3	Special School	6.5% estimate	88% African-American, 8% Caucasian, 2% Hispanic, .73% Asian, .33% Native-American, 96% African-American, 3% Caucasian, 1% Other	Urban Pop.- 1,222,120 Square Miles- 191.1
B	2/3	Special School	3-5%	.94% Hispanic, 6% Caucasian, .24% African-American, .09% Asian, .01% Native-American, 93% Hispanic, 7% Caucasian	Rural/ Suburban Pop.- 29,885 Square Miles- 945
C	3/4	Special School	270 students total 6-7%	55% African-American, 33% Caucasian, 8% Hispanic, 2.7% Asian, 1.1% Native-American, 55% African-American, 42% Caucasian, 3% Hispanic, and Other	Urban Pop.- 685,046 Square Miles- 113.4
D	2/3	Separate Class	12% (3-20%)	64% African-American, 30% Caucasian, 3.8% Asian, 2.5% Hispanic, .3% Native-American, 50% African-American, 35% Caucasian, 10% Asian, 5% Hispanic	Suburban, Urban, Rural Pop.- 729,268 Square Miles- 486.4
E	2/3	Separate Class	6%	98% Hispanic, 2.2% Caucasian, .1% African-American, 98% Hispanic, 2% Caucasian	Rural Pop.- 12,694 Square Miles- 7.4

Program Demographic Information (continued)

Code	Grade Level 1990-91 1991-92	Program Type	% Of School District Served In Program	% Of Ethnic Groups In District/ % In Program	Type of District, Total Population, and Size
G	3/4	Separate Class	20% estimated by school district	60% Caucasian, 38% African-American, 1% Asian, less than 1% other, 82% Caucasian, 17% African-American, less than 1% Other	Urban Pop.- 96,397 Square Miles- 42.9
H	2/3	Pull-Out	12% (3-20%)	64% African-American, 30% Caucasian, 3.8% Asian, 2.5% Hispanic, .3% Native-American, 50% African-American, 35% Caucasian, 10% Asian, 5% Hispanic	Suburban, Urban, Rural Pop.- 729,268 Square Miles- 486.4
I	2/3	Pull-Out	12-13%	53% Caucasian, 46% African-American, less than 1% other, unavailable for gifted program	Rural Pop.- 59,567 Square Miles- 455.5
J	4	Pull-Out	District is unable to provide this information.	66% Caucasian, 30% African-American, less than 1% other/ district unable to provide gifted program information	Rural, Suburban Pop.- 15,519 Square Miles- 113.8
K	2/3	Pull-Out	3% 1990-91 5% 1991-92	61% Caucasian, 38% African-American, less than 1% Other, district unable to provide gifted program information	Urban Pop.- 206,056 Square Miles- 60.1

Program Demographic Information (continued)

Code	Grade Level 1990-91 1991-92	Program Type	% Of School District Served In Program	% Of Ethnic Groups In District/ % In Program	Type of District, Total Population, and Size
L	2/3	Within-Class	12% (3-20%)	64% African-American, 30% Caucasian, 3.8% Asian, 2.5% Hispanic, .3% Native-American, 50% African-American, 35% Caucasian, 10% Asian, 5% Hispanic	Suburban, Urban, Rural Pop.- 729,268 Square Miles- 486.4
M	2/3	Within-Class	15% (type I, II) 5-10% (type III)	88.31% African-American, 8.32% Caucasian, 2.31% Hispanic, less than 1% other/ greater than 50% African-American	Urban Pop.- 1,222,120 Square Miles- 191.1
N	3/4	Within-Class	Type I - all 20% (Type II) n/a (Type III)	97% Caucasian, 2% African-American, less than 1% other/ District is unable to provide this information.	Suburban, Urban Pop.- 126,137 Square Miles- 49.7
O	2/3	Within-Class	18%	78% Caucasian, 11% African-American, less than 1% other/ 93% Caucasian, 4.5% African-American, 2.5% Other	Rural, Suburban Pop.- 68,040 Square Miles- 72.28
P	2/3	Gifted Comparison Group	n/a	n/a	Suburban, Urban Pop.- 18,458 Square Miles- 12.9
Q	2/3	Gifted Comparison Group	n/a	n/a	Rural Pop.- 65,585 Square Miles- 42.1
R	2/3	Gifted Comparison Group	n/a	n/a	Suburban Pop.- 29,387 Square Miles- 6.5

Appendix B

Program Profiles

PROGRAM PROFILE FORM

by

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The National Research center on the Gifted and Talented

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Author's Note: I would like to recognize the contribution of Patricia Dodd who provided valuable comments concerning the first version of this form.

PROGRAM PROFILE FORM- OVERVIEW (PART I)

1. SCHOOL NAME OR CODE:	2. PROGRAM TYPE:
3. PHILOSOPHY/MISSION STATEMENT:	4. NEEDS/BELIEF STATEMENTS:
5. DEFINITION OF GIFTEDNESS/TALENT:	6. CONSTRUCT OF GIFTEDNESS/TALENT:
DEMOGRAPHIC DATA (TOWN AND SCHOOL POPULATION, SIZE AND TYPE OF COMMUNITY, ETC.):	

PROGRAM PROFILE FORM- OVERVIEW (PART I)

PROGRAM DESCRIPTION:

7. GRADE LEVELS SERVED:
8. SYSTEMS/MODELS:
9. PROGRAM TYPE:
10. PROGRAM OPTIONS:

PROGRAM PROFILE FORM- OVERVIEW (PART I)

11. CONTENT:
12. % OF POPULATION SERVED:
13. AMOUNT OF TIME STUDENTS SPEND IN PROGRAM PER WEEK:
14. TEACHER'S ROLE:
15. GRADING OPTIONS:
16. COMMENTS:

PROGRAM PROFILE FORM- IDENTIFICATION (PART II)

1. SCHOOL NAME OR CODE:	2. TIME OF YEAR FOR IDENTIFICATION:
3. GRADE LEVELS:	4. IDENTIFICATION DESIGN:

IDENTIFICATION PROCEDURE:

5. STAGE OF IDENTIFICATION	6. INFO. SOURCE	7. TYPE OF INSTRUMENT	8. NAMES OF INSTRUMENTS	9. SELECTION CRITERIA	10. SPECIAL POPULATIONS PROVISIONS	11. DECISION MAKERS
12. COMMENTS:						

PROGRAM PROFILE FORM- CURRICULUM/STUDENT ASSESSMENT (PART III)

1. SCHOOL NAME OR CODE:	2. GOALS:
3. OBJECTIVES:	4. EVIDENCE OF SCOPE AND SEQUENCE OF ACTIVITIES:
5. SCHOOL AND COMMUNITY SUPPORT SERVICES:	6. STAFF DEVELOPMENT SYSTEM:
7. PARENT, TEACHER, STUDENT, ADMINISTRATOR COMMUNICATION SYSTEMS:	

PROGRAM PROFILE FORM- CURRICULUM/STUDENT ASSESSMENT (PART III)

STUDENT ASSESSMENT:

8. NUMBER OF TIMES FORMAL ASSESSMENT TAKES PLACE DURING THE YEAR (GRADES, PROGRESS REPORTS):	9. CRITERIA:	10. PROCEDURES:	11. AVERAGE NUMBER OF STUDENTS PER GRADE LEVEL:	12. OTHER
13. COMMENTS:				

PROGRAM PROFILE FORM- PROGRAM EVALUATION (PART IV)

1. SCHOOL NAME OR CODE:	2. TIME OF YEAR FOR FORMAL REVIEW:
3. EVALUATION CYCLE:	4. GRADE LEVELS:
5. COMMITTEE MEMBERS:	

EVALUATION PROCEDURES:

6. FOCUS:	7. DESIGN:	8. INFORMATION SOURCES:	9. DATA GATHERING METHODS:
10. COMMENTS:			

PROGRAM PROFILE FORM- OVERVIEW (PART I)

1. SCHOOL NAME OR CODE: A	2. PROGRAM TYPE: Special School
3. PHILOSOPHY/MISSION STATEMENT: "We believe that most students, given the appropriate learning conditions, can and will exceed the standard of performance required for their assigned levels and will strive for their optimum level of performance."	4. NEEDS/BELIEF STATEMENTS:
5. DEFINITION OF GIFTEDNESS/TALENT: USOE	6. CONSTRUCT OF GIFTEDNESS/TALENT: above average academic
DEMOGRAPHIC DATA (TOWN AND SCHOOL POPULATION, SIZE AND TYPE OF COMMUNITY, ETC.): city population 1,222,120, 191 square miles, population of school district- 88% African-American, 8% Caucasian, 2% Hispanic, less than 1% Asian, less than 1% Native American.	

PROGRAM DESCRIPTION:

7. GRADE LEVELS SERVED: 183 elementary schools, 52 middle schools, 23 high schools, program for the gifted in grades K - 12, 15,000 students served in program
8. SYSTEMS/MODELS: not specified
9. PROGRAM TYPE: Special School
10. PROGRAM OPTIONS: advanced journalism, public speaking, academic games, creative writing, engineering, drama, Future Problem Solving, computer education, creative video, career education

PROGRAM PROFILE FORM- OVERVIEW (PART I)

11. CONTENT: regular classroom content
12. % OF POPULATION SERVED: 6.5%
13. AMOUNT OF TIME STUDENTS SPEND IN PROGRAM PER WEEK: full-time
14. TEACHER'S ROLE: full-time instruction
15. GRADING OPTIONS: quarterly letter grades
16. COMMENTS:

PROGRAM PROFILE FORM- IDENTIFICATION (PART II)

1. SCHOOL NAME OR CODE: A	2. TIME OF YEAR FOR IDENTIFICATION: spring
3. GRADE LEVELS: 2-3 for study, school K-8	4. IDENTIFICATION DESIGN: three-step process

IDENTIFICATION PROCEDURE:

5. STAGE OF IDENTIFICATION	6. INFO. SOURCE	7. TYPE OF INSTRUMENT	8. NAMES OF INSTRUMENTS	9. SELECTION CRITERIA	10. SPECIAL POPULATIONS PROVISIONS	11. DECISION MAKERS
nomination	teacher	school district form	omination form	grade average of B,		
	grade	achievement test	California Ach. Test, Iowa Test of Basic Skills	85%ile		
identification	parent	checklist				
	teacher	checklist				
	student	test	developed by school	unspecified number of points awarded		
				rank order names, no prespecified cutoff		
					taken into consideration when points are awarded	Enrichment Team
12. COMMENTS:						

. PROGRAM PROFILE FORM- CURRICULUM/STUDENT ASSESSMENT (PART III)

1. SCHOOL NAME OR CODE: A	2. GOALS: 4 program goals-encourage creative and critical thinking, internalize the creative process, teachers will use the creative process, obtain balance between process and content
3. OBJECTIVES: teachers develop specific classroom objectives	4. EVIDENCE OF SCOPE AND SEQUENCE OF ACTIVITIES: developed according to sequence of skills in regular curriculum
5. SCHOOL AND COMMUNITY SUPPORT SERVICES: many types of involvement with parents and the community are encouraged,	6. STAFF DEVELOPMENT SYSTEM: required participation in workshops
7. PARENT, TEACHER, STUDENT, ADMINISTRATOR COMMUNICATION SYSTEMS: see community support, teachers also required to increase parental involvement in the school	

PROGRAM PROFILE FORM- CURRICULUM/STUDENT ASSESSMENT (PART III)

STUDENT ASSESSMENT:

8. NUMBER OF TIMES FORMAL ASSESSMENT TAKES PLACE DURING THE YEAR (GRADES, PROGRESS REPORTS):	9. CRITERIA:	10. PROCEDURES:	11. AVERAGE NUMBER OF STUDENTS PER GRADE LEVEL:	12. OTHER
quarterly letter grades				
13. COMMENTS:				

PROGRAM PROFILE FORM- PROGRAM EVALUATION (PART IV)

1. SCHOOL NAME OR CODE: A	2. TIME OF YEAR FOR FORMAL REVIEW: annual, spring
3. EVALUATION CYCLE: annual, plus special reviews of classroom models	4. GRADE LEVELS: K-8
5. COMMITTEE MEMBERS: coordinator, teachers	

EVALUATION PROCEDURES:

6. FOCUS:	7. DESIGN:	8. INFORMATION SOURCES:	9. DATA GATHERING METHODS:
cognitive and affective skills	correlational for cognitive variables, qualitative analysis for affective variables	students, parents, administrators	achievement scores open-ended questionnaires, interviews
10. COMMENTS:			

PROGRAM PROFILE FORM- OVERVIEW (PART I)

1. SCHOOL NAME OR CODE: B	2. PROGRAM TYPE: Special School services 2-9 are presently offered in a magnet school format
3. PHILOSOPHY/MISSION STATEMENT: information about assisting students to become self-confident, creative and productive thinkers, and contributing members of society	4. NEEDS/BELIEF STATEMENTS:
5. DEFINITION OF GIFTEDNESS/TALENT: United States Office of Education guidelines	6. CONSTRUCT OF GIFTEDNESS/TALENT: academically oriented
DEMOGRAPHIC DATA (TOWN AND SCHOOL POPULATION, SIZE AND TYPE OF COMMUNITY, ETC.): 94% Hispanic, the district spans 945 square miles, and is located near the Mexican border, the program for the gifted was three years old in 1989-1990, all districts in this state must be serving their gifted students K-12 by 1990-1991	

PROGRAM DESCRIPTION:

7. GRADE LEVELS SERVED: 2-9 for 1989-1990, K-12 for 1990-1991 current program has been in operation for the past three years only
8. SYSTEMS/MODELS: curriculum follows Sandra Kaplan's model integrating content, process, product, and learning environment
9. PROGRAM TYPE: Special School
10. PROGRAM OPTIONS: higher-level content, basic skills, research skills, thinking skills, and products

PROGRAM PROFILE FORM- OVERVIEW (PART I)

11. CONTENT: multidisciplinary, higher level thinking skills, problem solving, creativity
12. % OF POPULATION SERVED: 3-5%
13. AMOUNT OF TIME STUDENTS SPEND IN PROGRAM PER WEEK: full time special school
14. TEACHER'S ROLE: full time
15. GRADING OPTIONS: regular classroom grading process
16. COMMENTS:

PROGRAM PROFILE FORM- IDENTIFICATION (PART II)

1. SCHOOL NAME OR CODE: B	2. TIME OF YEAR FOR IDENTIFICATION: Spring
3. GRADE LEVELS: all	4. IDENTIFICATION DESIGN: matrix

IDENTIFICATION PROCEDURE:

5. STAGE OF IDENTIFICATION	6. INFO. SOURCE	7. TYPE OF INSTRUMENT	8. NAMES OF INSTRUMENTS	9. SELECTION CRITERIA	10. SPECIAL POPULATIONS PROVISIONS	11. DECISION MAKERS
nomination						
screening	tests	ability test	Raven's Progressive Matrices	none specified	none specified	
		achievement test	California Achievement Test			
		checklist	SRBCSS			
			Grades			
Selection						administrator, teacher, counselor, psychologist or diagnostician
12. COMMENTS:						

PROGRAM PROFILE FORM- CURRICULUM/STUDENT ASSESSMENT (PART III)

1. SCHOOL NAME OR CODE: B	2. GOALS: 6 program goals given including set-up goals (select and develop appropriate criteria for identification, etc.) and instructional goals (developing critical and creative thinking, flexible viewpoint, understanding of content at greater depth, enrichment opportunities, understanding self, development of ethics, productivity and intrinsic motivation
3. OBJECTIVES:	4. EVIDENCE OF SCOPE AND SEQUENCE OF ACTIVITIES: use of Kaplan approach to curriculum development stresses scope and sequence- higher level content, basic skills, research, thinking, and productive development
5. SCHOOL AND COMMUNITY SUPPORT SERVICES:	6. STAFF DEVELOPMENT SYSTEM: most staff development has been through the regional service center, most staff members have no formal course work in gifted education
7. PARENT, TEACHER, STUDENT, ADMINISTRATOR COMMUNICATION SYSTEMS:	

PROGRAM PROFILE FORM- CURRICULUM/STUDENT ASSESSMENT (PART III)

STUDENT ASSESSMENT:

8. NUMBER OF TIMES FORMAL ASSESSMENT TAKES PLACE DURING THE YEAR (GRADES, PROGRESS REPORTS):	9. CRITERIA:	10. PROCEDURES:	11. AVERAGE NUMBER OF STUDENTS PER GRADE LEVEL:	12. OTHER
integrated in grading system	evaluation regarding potential exiting from the program may be instigated by a parent or the teacher, a grade below 76 in a G/T class is used as a criterion for dismissal			
13. COMMENTS:				

PROGRAM PROFILE FORM- PROGRAM EVALUATION (PART IV)

1. SCHOOL NAME OR CODE: B only information for student evaluation is provided	2. TIME OF YEAR FOR FORMAL REVIEW:
3. EVALUATION CYCLE:	4. GRADE LEVELS:
5. COMMITTEE MEMBERS:	

EVALUATION PROCEDURES:

6. FOCUS:	7. DESIGN:	8. INFORMATION SOURCES:	9 DATA GATHERING METHODS:
10. COMMENTS:			

PROGRAM PROFILE FORM- OVERVIEW (PART I)

1. SCHOOL NAME OR CODE: C	2. PROGRAM TYPE: Special School
3. PHILOSOPHY/MISSION STATEMENT: The school offers a wide array of programs and services directed toward developing the abilities and competencies of gifted and talented pupils. Continued attempts to enrich the lives of these children as well as the lives of the people with whom they interact are made throughout the program. Although many students exhibit high intellectual ability, this school is not a school exclusively for the academically superior student. It is a school for children possessing a variety of gifts and talents.	4. NEEDS/BELIEF STATEMENTS:
5. DEFINITION OF GIFTEDNESS/TALENT: United States Office of Education guidelines	6. CONSTRUCT OF GIFTEDNESS/TALENT: general intellectual ability, specific academic aptitude, creative or productive thinking, leadership ability, and skills in the visual and performing arts
DEMOGRAPHIC DATA (TOWN AND SCHOOL POPULATION, SIZE AND TYPE OF COMMUNITY, ETC.): population of urban area- 685,046, 113.4 square miles, school population is 55% African-American, 42% Caucasian, and 3% Hispanic and other	

PROGRAM DESCRIPTION:

7. GRADE LEVELS SERVED: 3-5, 270 students in entire school
8. SYSTEMS/MODELS:
9. PROGRAM TYPE: Special School
10. PROGRAM OPTIONS: enrichment, research projects, integration with the community, inventions, lessons in playing an instrument, Language Arts Olympics, Math Olympics, foreign language, science fair, national science Olympiad, nature club, camping, expansion of Educational Experiences club, visiting artists, symphony, chorus, and many other opportunities as new suggestions are made

PROGRAM PROFILE FORM- OVERVIEW (PART I)

11. CONTENT: reading, language arts, foreign language, mathematics, social studies, science, music, visual arts, physical education, home economics, industrial arts
12. % OF POPULATION SERVED: students are selected from a large pool of eligible students throughout the city
13. AMOUNT OF TIME STUDENTS SPEND IN PROGRAM PER WEEK: full time
14. TEACHER'S ROLE: full time classroom teacher, most classes have a student teacher, special classes such as industrial arts, computers, home economics, music, physical education are taught by specially trained teachers
15. GRADING OPTIONS: regular school grades are given, narrative comments are made by the teacher, parent, and the student, a checklist and narrative report are supplied for parent/teacher conferences
16. COMMENTS:

PROGRAM PROFILE FORM- IDENTIFICATION (PART II)

1. SCHOOL NAME OR CODE: C	2. TIME OF YEAR FOR IDENTIFICATION:
3. GRADE LEVELS:	4. IDENTIFICATION DESIGN:

IDENTIFICATION PROCEDURE:

5. STAGE OF IDENTIFICATION	6. INFO. SOURCE	7. TYPE OF INSTRUMENT	8. NAMES OF INSTRUMENTS	9. SELECTION CRITERIA	10. SPECIAL POPULATIONS PROVISIONS	11. DECISION MAKERS
nomination	teacher	checklist	Gifted and Talented Information Form		55% of student population is African-American	administrator, teachers random selection of Caucasian students is made from pool of students
12. COMMENTS:						

PROGRAM PROFILE FORM- CURRICULUM/STUDENT ASSESSMENT (PART III)

1. SCHOOL NAME OR CODE: C	2. GOALS: This school staff seeks to create a stimulating environment where the potential of every student is challenged and rewarded. Program goals include: developing an awareness of each pupil's abilities and talents; fostering respect for the abilities and talents of others; and providing experiences in critical/creative thinking and problem solving skills
3. OBJECTIVES: teachers write and initiate curricular goals	4. EVIDENCE OF SCOPE AND SEQUENCE OF ACTIVITIES: maintained by individual classroom teachers for their subject matter areas
5. SCHOOL AND COMMUNITY SUPPORT SERVICES: 14 topics for curricular extensions were listed in the handbook in addition to other organizations such as a student advisory council, a parent-school organization (15 topics were listed for the parent-school organization)	6. STAFF DEVELOPMENT SYSTEM: conferences, workshops, and courses are available to the staff
7. PARENT, TEACHER, STUDENT, ADMINISTRATOR COMMUNICATION SYSTEMS: annual parent/teacher conferences, teachers develop their own communication systems, frequent communication is recommended, a newsletter is sent home periodically	

PROGRAM PROFILE FORM- CURRICULUM/STUDENT ASSESSMENT (PART III)

STUDENT ASSESSMENT:

8. NUMBER OF TIMES FORMAL ASSESSMENT TAKES PLACE DURING THE YEAR (GRADES, PROGRESS REPORTS): quarterly, letter grades, narrative by teacher, comments by student and parent	9. CRITERIA:	10. PROCEDURES:	11. AVERAGE NUMBER OF STUDENTS PER GRADE LEVEL: 90 students per grade level, 3 classrooms each for grades 3, 4, and 5	12. OTHER
13. COMMENTS:				

PROGRAM PROFILE FORM- PROGRAM EVALUATION (PART IV)

1. SCHOOL NAME OR CODE: C No specific program evaluation system was provided in the written documentation. Verbal confirmation of an evaluation was made.	2. TIME OF YEAR FOR FORMAL REVIEW: Spring
3. EVALUATION CYCLE: Annual	4. GRADE LEVELS: 3, 4, 5
5. COMMITTEE MEMBERS: All teachers	

EVALUATION PROCEDURES:

6. FOCUS: Student performance is evaluated by teachers, the principal receives feedback from parents informally	7. DESIGN:	8. INFORMATION SOURCES:	9. DATA GATHERING METHODS:
10. COMMENTS:			

PROGRAM PROFILE FORM- OVERVIEW (PART I)

1. SCHOOL NAME OR CODE: E	2. PROGRAM TYPE: Separate Classroom
3. PHILOSOPHY/MISSION STATEMENT: The [name of school] District is committed to excellence in education for all students. Recognizing that this commitment demands fostering and developing the abilities of gifted and talented students, this School District accepts the responsibility of developing an exemplary instructional program for these students. Furthermore, the [name of district] School District is of a belief that all students including those that lack a full command of the English language (Limited English Proficient, LEP), those that are members of migrant families, and those that have unique learning styles and/or needs will have equal access to the gifted/talented program. (Gifted and Talented Program Implementation Plan)	4. NEEDS/BELIEF STATEMENTS:
5. DEFINITION OF GIFTEDNESS/TALENT: general intellectual ability, specific subject matter aptitude, creative and productive thinking ability, and leadership ability (USOE)	6. CONSTRUCT OF GIFTEDNESS/TALENT: general intellectual ability, specific subject matter aptitude, creative and productive thinking ability, and leadership ability
DEMOGRAPHIC DATA (TOWN AND SCHOOL POPULATION, SIZE AND TYPE OF COMMUNITY, ETC.): population- 12,694, 7.4 square miles, rural - small town, student population in district- 4,897	

PROGRAM DESCRIPTION:

7. GRADE LEVELS SERVED: 2-8
8. SYSTEMS/MODELS: none specified
9. PROGRAM TYPE: Separate Class
10. PROGRAM OPTIONS: Odyssey of the Mind, Future Problem Solving, Artifact Box, creativity training, computer programming, creative writing and mathematics competitions

PROGRAM PROFILE FORM- OVERVIEW (PART I)

11. CONTENT: specific subject matter
12. % OF POPULATION SERVED: 6%, approximately 24 students/ grade level
13. AMOUNT OF TIME STUDENTS SPEND IN PROGRAM PER WEEK: full time
14. TEACHER'S ROLE: full time instructor, teachers have the option of team teaching with a teacher in another self-contained classroom
15. GRADING OPTIONS: quarterly letter grade
16. COMMENTS:

PROGRAM PROFILE FORM- IDENTIFICATION (PART II)

1. SCHOOL NAME OR CODE: E	2. TIME OF YEAR FOR IDENTIFICATION: fall and spring
3. GRADE LEVELS: 2 - 8	4. IDENTIFICATION DESIGN: typical nomination, screening, selection method, matrix

IDENTIFICATION PROCEDURE:

5. STAGE OF IDENTIFICATION	6. INFO. SOURCE	7. TYPE OF INSTRUMENT	8. NAMES OF INSTRUMENTS	9. SELECTION CRITERIA	10. SPECIAL POPULATIONS PROVISIONS	11. DECISION MAKERS
nomination	parent recommendation	informal message	N/A			
	teacher	checklist	Scale for Rating Behavioral Characteristics of Superior Students			
first screening phase	teacher	checklist	SRBCSS			
	test grades	ach. test grades	Calif. Ach. Test N/A	90th%ile or higher avg. of 90 or more		
second phase	test	ability test	Raven's Progressive Matrices	at least an average score	no special scores	G/T coordinator, G/T teacher, principal
12. COMMENTS:						

PROGRAM PROFILE FORM- CURRICULUM/STUDENT ASSESSMENT (PART III)

1. SCHOOL NAME OR CODE: E	2. GOALS: 5 long-range district goals, 6 general instructional goals, 8 instructional goals including addressing the cognitive and affective needs of students
3. OBJECTIVES: the academic objectives are prespecified by the state and local education boards, additional objectives are determined by the teachers	4. EVIDENCE OF SCOPE AND SEQUENCE OF ACTIVITIES:
5. SCHOOL AND COMMUNITY SUPPORT SERVICES: A program objective for every teacher is to invite parents to at least two school, regional, or state events for gifted education each year	6. STAFF DEVELOPMENT SYSTEM: courses include the characteristics and identification of gifted students, curriculum and creative problem solving
7. PARENT, TEACHER, STUDENT, ADMINISTRATOR COMMUNICATION SYSTEMS: classes are initiating newsletters	

PROGRAM PROFILE FORM- CURRICULUM/STUDENT ASSESSMENT (PART III)

STUDENT ASSESSMENT:

8. NUMBER OF TIMES FORMAL ASSESSMENT TAKES PLACE DURING THE YEAR (GRADES, PROGRESS REPORTS):	9. CRITERIA:	10. PROCEDURES:	11. AVERAGE NUMBER OF STUDENTS PER GRADE LEVEL:	12. OTHER
grades are distributed quarterly				
an annual evaluation of student progress is initiated	none specified		22	
13. COMMENTS:				

PROGRAM PROFILE FORM- PROGRAM EVALUATION (PART IV)

1. SCHOOL NAME OR CODE: E	2. TIME OF YEAR FOR FORMAL REVIEW: spring
3. EVALUATION CYCLE: annual, and at the end of the fifth grade a re-evaluation of all student records takes place	4. GRADE LEVELS: 2-8
5. COMMITTEE MEMBERS: principal, G/T coordinator, G/T teacher	

EVALUATION PROCEDURES:

6. FOCUS:	7. DESIGN:	8. INFORMATION SOURCES:	9. DATA GATHERING METHODS:
identification curriculum staff development parental/community involvement	not specified	teachers, administrators, parents	each aspect of evaluation relates to a specific program objective; teachers' instructional units are reviewed; student identification procedures are reviewed to understand if there are any problems in the identification system; logs are reviewed to collect frequency of parent attendance at local and regional activities for the gifted; building administrators are asked to comment about the program in their schools
10. COMMENTS:			

PROGRAM PROFILE FORM- OVERVIEW (PART I)

1. SCHOOL NAME OR CODE: I	2. PROGRAM TYPE: Pull-out
3. PHILOSOPHY/MISSION STATEMENT: Goals for Academically Gifted Program: (a) To provide a learning environment where gifted students from diverse socio-economic backgrounds can investigate and exchange ideas and interact with each other through intellectual activities, (b) To provide a concept-oriented curriculum which stresses interdisciplinary relationships and high level thinking processes, (c) To promote the understanding of individual potential and the awareness of responsibilities of the gifted to self and society.	4. NEEDS/BELIEF STATEMENTS: Not specifically stated
5. DEFINITION OF GIFTEDNESS/TALENT: Gifted and talented students are those who are identified in grades 1-12 in the areas of high performance in academic and intellectual ability.	6. CONSTRUCT OF GIFTEDNESS/TALENT: academically gifted
DEMOGRAPHIC DATA (TOWN AND SCHOOL POPULATION, SIZE AND TYPE OF COMMUNITY, ETC.): population- 59,567, 455.5 square miles, described as rural, but has a town center and includes several industrial centers, total school district population- 8,700, 1,100 students served in the gifted program, 28 teachers for the gifted and talented program, program has been in existence for 12 years, current expenditure per pupil- $3,200	

PROGRAM DESCRIPTION:

7. GRADE LEVELS SERVED: 2-12, students are screened during the first grade, state regulations include identification for students in grades 1-12
8. SYSTEMS/MODELS: Interdisciplinary units, Renzulli- Triad Model, Treffinger's Self-directed Learning
9. PROGRAM TYPE: Pull-out
10. PROGRAM OPTIONS: Thematic Unit, Creative Problem Solving, Cooperative Learning, Odyssey of the Mind

PROGRAM PROFILE FORM- OVERVIEW (PART I)

11. CONTENT: thematic-based units including emphasis on content (concept-based, transferability), process (thinking skills, discovery learning), product (tangible/intangible, transformative), evaluation (teacher/peer/self, setting criteria), and learning environment (student-centered, mobility)
12. % OF POPULATION SERVED: 12-13%
13. AMOUNT OF TIME STUDENTS SPEND IN PROGRAM PER WEEK: 2 hours and 5 minutes each week
14. TEACHER'S ROLE: itinerant teacher, resource room (this could be a gymnasium, a room shared with the visual arts teacher, a storage room, or a regular classroom), 3 half time teachers travel to 8 primary schools (K-4)
15. GRADING OPTIONS: narrative quarterly report
16. COMMENTS: grades 4-6 are departmentalized for the regular curriculum, students attend a resource pull-out program 1 day per week, students are transported to a center staffed by a consultant, a secretary, and 5 full-time teachers, in grades 7-9 the social studies classes are organized into nine-week units of study, in grades 10-12 students take honors and advanced placement courses

PROGRAM PROFILE FORM- IDENTIFICATION (PART II)

1. SCHOOL NAME OR CODE: I	2. TIME OF YEAR FOR IDENTIFICATION: spring
3. GRADE LEVELS: 2-12, for the purposes of the research- 2-3	4. IDENTIFICATION DESIGN: weighted profile

IDENTIFICATION PROCEDURE:

5. STAGE OF IDENTIFICATION	6. INFO. SOURCE	7. TYPE OF INSTRUMENT	8. NAMES OF INSTRUMENTS	9. SELECTION CRITERIA	10. SPECIAL POPULATIONS PROVISIONS	11. DECISION MAKERS
screening	parents, teachers, administrators, self	nomination				
selection	IQ test	IQ test	variety accepted	weight of 45		
	achievement	ach. test	Comprehensive Test of Basic Skills	weight of 45	for underachievers, 96%ile and above on one approved measure, plus probation in program	teacher, administrator, psychologist or counselor (if available)
	performance data- parents, teacher, self products,	anecdotal records, products, grades				
12. COMMENTS:						

PROGRAM PROFILE FORM- CURRICULUM/STUDENT ASSESSMENT (PART III)

1. SCHOOL NAME OR CODE: I	2. GOALS: three main program goals including to have an appropriate learning environment for those from diverse socio-economic backgrounds, interdisciplinary content, higher level thinking, understanding of self and society
3. OBJECTIVES: specific objectives for each unit of study	4. EVIDENCE OF SCOPE AND SEQUENCE OF ACTIVITIES: The program goals will be implemented through interdisciplinary units at the elementary level. These skill areas to be addressed at the elementary level are social (self and group), organizational, research, and thinking (systematic and creative). A skills continuum has been developed incorporating elements of the district's science skills continuum. At each grade level, the skills are identified as being introductory or extended.
5. SCHOOL AND COMMUNITY SUPPORT SERVICES: variety of extra-curricular activities employing the community	6. STAFF DEVELOPMENT SYSTEM: ongoing staff development required of all TAG teachers
7. PARENT, TEACHER, STUDENT, ADMINISTRATOR COMMUNICATION SYSTEMS: frequent meetings, newsletters, notes	

PROGRAM PROFILE FORM- CURRICULUM/STUDENT ASSESSMENT (PART III)

STUDENT ASSESSMENT:

8. NUMBER OF TIMES FORMAL ASSESSMENT TAKES PLACE DURING THE YEAR (GRADES, PROGRESS REPORTS):	9. CRITERIA:	10. PROCEDURES:	11. AVERAGE NUMBER OF STUDENTS PER GRADE LEVEL:	12. OTHER
grades (Excellent, Satisfactory, Needs Improvement) sent home twice/year for third grade, narratives included, second grade students get grades at end of unit				
13. COMMENTS:				

PROGRAM PROFILE FORM- PROGRAM EVALUATION (PART IV)

1. SCHOOL NAME OR CODE: I	2. TIME OF YEAR FOR FORMAL REVIEW: unspecified
3. EVALUATION CYCLE: annual	4. GRADE LEVELS: all
5. COMMITTEE MEMBERS:	

EVALUATION PROCEDURES:

6. FOCUS:	7. DESIGN:	8. INFORMATION SOURCES:	9. DATA GATHERING METHODS:
evaluate all programs- academic and arts evaluate all staff members	unspecified	students, teachers	student projects, teacher reports, TAG teachers' verbal feedback about the program
10. COMMENTS:			

PROGRAM PROFILE FORM- OVERVIEW (PART I)

1. SCHOOL NAME OR CODE: M	2. PROGRAM TYPE: Within-class
3. PHILOSOPHY/MISSION STATEMENT: Belief in building a School-wide Modified Enrichment Triad Model through a cluster group setting	4. NEEDS/BELIEF STATEMENTS:
5. DEFINITION OF GIFTEDNESS/TALENT: Three-Ring Conception, specifically above average academic and /or creativity	6. CONSTRUCT OF GIFTEDNESS/TALENT: above average academic and /or creativity
DEMOGRAPHIC DATA (TOWN AND SCHOOL POPULATION, SIZE AND TYPE OF COMMUNITY, ETC.): city population 1,222,120, 191 square miles, population of school district- 88% African-American, 8% Caucasian, 2% Hispanic, less than 1% Asian, less than 1% Native American.	

PROGRAM DESCRIPTION:

7. GRADE LEVELS SERVED: 183 elementary schools, 52 middle schools, 23 high schools, program for the gifted in grades K - 12, 15,000 students served in program
8. SYSTEMS/MODELS: School-wide Modified Enrichment Triad Model
9. PROGRAM TYPE: Within-class
10. PROGRAM OPTIONS: Talents Unlimited, Teaching of, for, and about thinking, collaborative/cooperative learning, Glasser classroom meetings, curriculum differentiation/compacting, thematic units, reciprocal teaching, Junior Great Books, debate, Future Problem Solving, etc.

PROGRAM PROFILE FORM- OVERVIEW (PART I)

11. CONTENT: regular classroom content
12. % OF POPULATION SERVED: 6.5%
13. AMOUNT OF TIME STUDENTS SPEND IN PROGRAM PER WEEK: full-time
14. TEACHER'S ROLE: full-time instruction
15. GRADING OPTIONS: quarterly letter grades
16. COMMENTS:

PROGRAM PROFILE FORM- IDENTIFICATION (PART II)

1. SCHOOL NAME OR CODE: M	2. TIME OF YEAR FOR IDENTIFICATION: spring
3. GRADE LEVELS: 2-3 for study	4. IDENTIFICATION DESIGN: three-step process

IDENTIFICATION PROCEDURE:

5. STAGE OF IDENTIFICATION	6. INFO. SOURCE	7. TYPE OF INSTRUMENT	8. NAMES OF INSTRUMENTS	9. SELECTION CRITERIA	10. SPECIAL POPULATIONS PROVISIONS	11. DECISION MAKERS
nomination	teacher	school district form	nomination form	unspecified number of points		
	test	ability test	Cognitive Abilities Test	awarded for sections, students with certain number of points move to step 2		
identification	teacher	checklist	SRBCSS			
	student	informal	student writes or draws about personal achievement			
	parents	informal form	nomination form	unspecified number of points awarded		
				rank order names, no prespecified cutoff	taken into consideration when points are awarded	Enrichment Team
12. COMMENTS:						

PROGRAM PROFILE FORM- CURRICULUM/STUDENT ASSESSMENT (PART III)

1. SCHOOL NAME OR CODE: M	2. GOALS: 4 program goals- promote literacy, provide interaction between parents and the school, demonstrate increased student achievement, integrate special curricular adaptations, 6 expectations for teachers, 11 attributes of a cluster classroom
3. OBJECTIVES: teachers develop specific classroom objectives	4. EVIDENCE OF SCOPE AND SEQUENCE OF ACTIVITIES: developed according to sequence of skills in regular curriculum
5. SCHOOL AND COMMUNITY SUPPORT SERVICES: many types of involvement with parents and the community are encouraged, pamphlet about creating partnerships between family, child, and school, Family Volunteer Interest Survey includes categories for classroom activities, parent led activities, special activities, teacher assistants	6. STAFF DEVELOPMENT SYSTEM: required participation in workshops, all teachers trained in model and classroom options, monthly meetings during school year
7. PARENT, TEACHER, STUDENT, ADMINISTRATOR COMMUNICATION SYSTEMS: see community support, teachers also required to increase parental involvement in the school	

PROGRAM PROFILE FORM- CURRICULUM/STUDENT ASSESSMENT (PART III)

STUDENT ASSESSMENT:

8. NUMBER OF TIMES FORMAL ASSESSMENT TAKES PLACE DURING THE YEAR (GRADES, PROGRESS REPORTS):	9. CRITERIA:	10. PROCEDURES:	11. AVERAGE NUMBER OF STUDENTS PER GRADE LEVEL:	12. OTHER
quarterly letter grades				
13. COMMENTS:				

PROGRAM PROFILE FORM- PROGRAM EVALUATION (PART IV)

1. SCHOOL NAME OR CODE: M	2. TIME OF YEAR FOR FORMAL REVIEW: annual, spring
3. EVALUATION CYCLE: annual, plus special reviews of classroom models	4. GRADE LEVELS: K-12, special reports on cluster classrooms-elementary schools
5. COMMITTEE MEMBERS: coordinator, teachers	

EVALUATION PROCEDURES:

6. FOCUS:	7. DESIGN:	8. INFORMATION SOURCES:	9. DATA GATHERING METHODS:
cognitive and affective skills	correlational for cognitive variables, qualitative analysis for affective variables	students, parents, administrators	achievement scores open-ended questionnaires, interviews
10. COMMENTS:			

PROGRAM PROFILE FORM- OVERVIEW (PART I)

1. SCHOOL NAME OR CODE: O	2. PROGRAM TYPE: Within-class
3. PHILOSOPHY/MISSION STATEMENT: commitment to developing academic skills in mathematics and language arts	4. NEEDS/BELIEF STATEMENTS:
5. DEFINITION OF GIFTEDNESS/TALENT: USOE, Three-Ring	6. CONSTRUCT OF GIFTEDNESS/TALENT: academic ability, mathematics, language arts
DEMOGRAPHIC DATA (TOWN AND SCHOOL POPULATION, SIZE AND TYPE OF COMMUNITY, ETC.):city population- 68,040, 722 square miles for county school district, 93% Caucasian, 4-5% African-American, in program- 11% African-American, 78% Caucasian	

PROGRAM DESCRIPTION:

7. GRADE LEVELS SERVED: K-12, for this study, 2-3
8. SYSTEMS/MODELS: regular classroom instruction - Comprehensive School Mathematics Program, advanced and enriched language arts program
9. PROGRAM TYPE: Within-class
10. PROGRAM OPTIONS: Odyssey reading program, Bookmark Reading program

PROGRAM PROFILE FORM- OVERVIEW (PART I)

11. CONTENT: regular classroom program
12. % OF POPULATION SERVED: 18%
13. AMOUNT OF TIME STUDENTS SPEND IN PROGRAM PER WEEK: full-time
14. TEACHER'S ROLE: full-time
15. GRADING OPTIONS: regular letter grades
16. COMMENTS:

PROGRAM PROFILE FORM- IDENTIFICATION (PART II)

1. SCHOOL NAME OR CODE: O	2. TIME OF YEAR FOR IDENTIFICATION: spring
3. GRADE LEVELS: 2-3	4. IDENTIFICATION DESIGN: four-step process

IDENTIFICATION PROCEDURE:

5. STAGE OF IDENTIFICATION	6. INFO. SOURCE	7. TYPE OF INSTRUMENT	8. NAMES OF INSTRUMENTS	9. SELECTION CRITERIA	10. SPECIAL POPULATIONS PROVISIONS	11. DECISION MAKERS
nomination-continuous process	student, parent, teacher, administrator	informal nomination,				
screening	test	achievement test	Metropolitan Achievement Test and/or Analytical Reading Inventory for mathematics and reading scores	92%ile and above		
	grades	grades		A-B range	specific teacher training to identify characteristics of high ability children who are underachievers, have handicaps, economically disadvantaged	student can qualify for the program in reading, language arts or both team decision-coordinator, teachers, administrator
12. COMMENTS:						

PROGRAM PROFILE FORM- CURRICULUM/STUDENT ASSESSMENT (PART III)

1. SCHOOL NAME OR CODE: O	2. GOALS: 5 program goals and related strategies- complete student identification, implement curriculum, provide professional development, promote advisory committee, conduct an evaluation of the program
3. OBJECTIVES: specified according to program goals, curricular goals specified by individual teachers	4. EVIDENCE OF SCOPE AND SEQUENCE OF ACTIVITIES: related to regular curriculum
5. SCHOOL AND COMMUNITY SUPPORT SERVICES: maintain community involvement through advisory committee events	6. STAFF DEVELOPMENT SYSTEM: ongoing through staff and local university faculty
7. PARENT, TEACHER, STUDENT, ADMINISTRATOR COMMUNICATION SYSTEMS: newsletter and advisory committee	

PROGRAM PROFILE FORM- CURRICULUM/STUDENT ASSESSMENT (PART III)

STUDENT ASSESSMENT:

8. NUMBER OF TIMES FORMAL ASSESSMENT TAKES PLACE DURING THE YEAR (GRADES, PROGRESS REPORTS):	9. CRITERIA:	10. PROCEDURES:	11. AVERAGE NUMBER OF STUDENTS PER GRADE LEVEL:	12. OTHER
quarterly letter grades, satisfactory/unsatisfactory for primary grades, plus comments				
13. COMMENTS:				

PROGRAM PROFILE FORM- PROGRAM EVALUATION (PART IV)

1. SCHOOL NAME OR CODE: O	2. TIME OF YEAR FOR FORMAL REVIEW: not specified
3. EVALUATION CYCLE: annual and additional evaluation plan approximately every 2 years	4. GRADE LEVELS: K-12
5. COMMITTEE MEMBERS: teachers, administrators, consultants	

EVALUATION PROCEDURES:

6. FOCUS:	7. DESIGN:	8. INFORMATION SOURCES:	9. DATA GATHERING METHODS:
not specified	survey	teachers, parents, students, administrators	surveys
10. COMMENTS: unclear when evaluation occurs, one section states annually, another indicates a two-year schedule			

Appendix C

Qualitative Extension of the Learning Outcomes Study Interview Questions for Students, Parents, and Teachers

Qualitative Extension of the Learning Outcomes Study

Teacher Interview Questions

1. What do you see as the needs of the high ability students in your classroom?
2. How do you address the needs of the high ability students in your classroom? How are these needs addressed differently from the needs of other students in the class or school?
3. What particular strategies do you use?
4. What educational model(s) are implemented in your school and classroom? How does this or these model(s) get implemented in your school? In your class?
5. How does this model influence your teaching? What do you do differently compared to a classroom that does not use this model?
6. What are positive aspects of this model? negative aspects?
7. How do you think this grouping arrangement affects the students who are in the program?
8. How do you think this grouping arrangement affects the students who are *not* in the program?
9. What types of teacher training or staff development are provided in your district? Is this optional or required?
10. How are teachers selected to teach in this program? Are there state or local guidelines, certification?
11. Describe a typical teacher in this program? What do you think it takes to be an effective teacher in this program? How would you write a job description for this position?
12. What characteristics do you bring to your work as a teacher in this program?
13. Describe the classroom atmosphere you like to develop? When is it easiest to achieve this? When is it the most difficult?
14. Discuss the involvement administrators have with this program? principals, coordinator
15. How do you work with other staff members at the school? (librarians, school psychologists, fine arts teachers, etc.) in the district?
16. What type of information do parents receive about the program? From whom, how often? What type of communication do *you* have with parents?
17. What has the greatest influence on the academic achievement of students in this program?
18. What influence does this program have on student motivation?
19. What influence does this program have on student self-concept?
20. What influence does this program have on student creativity?
21. What type of student evaluation procedures are used in the program? How do classroom student evaluation procedures affect student motivation?
22. How do you address the needs of students from culturally diverse and economically disadvantaged backgrounds?

Qualitative Extension of the Learning Outcomes Study

Student Interview Questions

1. What do you like to do the most in school? the least? What are your interests concerning school?
2. What do you like to do outside of school?
3. What do you like to read?
4. What do you do in the [name of program] program? How would you explain the program to me?
5. If you could, how would you change the program? If you could, how would you spend the way you spend your time in school?
6. How do you know how you are doing in the program? Do you get grades or have a conference with the teacher?
7. How do you think you learn best?
8. How do you fit in at school? Do you have as many friends as you want? Are any of the activities you do in your classes different from what the other kids do?

Qualitative Extension of the Learning Outcomes Study

Parents Interview Questions

1. What do you think is the most positive aspect of this program for your child? What might be a negative aspect?
2. If you could, how would you like to change the program?
3. How do you think this program influences your child's academic abilities?
4. How do you think this program influences your child's self-concept?
5. How do you think this program influences your child's motivation?
6. How do you think this program influences your child's creativity?
7. Do you get enough information about the program? What types of information do you get?

Appendix D

Program Satisfaction Surveys

by

Marcia A. B. Delcourt
Jay A. McIntire

STUDENT SURVEY ABOUT THE _____ PROGRAM

PART I: <u>DIRECTIONS</u>- READ EACH SENTENCE BELOW. Think about how often the sentence describes you. Circle the answer which describes you best.

EXAMPLE:

I play outdoors.

MOST OF THE TIME SOMETIMES NEVER

If you play outdoors nearly every day, you would circle MOST OF THE TIME.

1. **The Things I study in the _____ school are new to me.**

   MOST OF THE TIME SOMETIMES NEVER

2. **The things I study in the _____ school are challenging to me.**

   MOST OF THE TIME SOMETIMES NEVER

3. **I enjoy being in the _____ school.**

   MOST OF THE TIME SOMETIMES NEVER

4. **I enjoy working with the people in the _____ school.**

   MOST OF THE TIME SOMETIMES NEVER

Thank you!

PLEASE RETURN THIS FORM IN THE ENVELOPE ADDRESSED TO: DR. MARCIA DELCOURT, 275 RUFFNER HALL, 405 EMMET STREET, THE UNIVERSITY OF VIRGINIA, CHARLOTTESVILLE, VA 22903.

September 13, 1991

Dear

Last year, you and your child participated in the Learning Outcomes Project, a two-year study conducted at the University of Virginia. We want you to know that **we really appreciate your assistance** with our research of different types of educational programs across the country.

At this point in our research, we are collecting information from teachers, parents, students, and administrators to find out about the similarities and differences among the programs targeted by this study. The information gained from these surveys will help us to determine how certain characteristics of programs related to the overall effectiveness of these programs. This information will, we hope, eventually help provide optimally successful learning experiences for students. As always, information we collect will be confidential and used only for our research purposes.

We appreciate your continued assistance in our efforts. Please complete the enclosed survey and return it to our offices within the next month. For your convenience, a self-addressed stamped envelope has been included. Thank you!

Sincerely,

Marcia Delcourt
Principal Investigator

P.S. Unlike many of our other solicitations, we will only ask you to complete this survey once!

PARENT SURVEY ABOUT THE _____ PROGRAM

DIRECTIONS- For each question provided, please circle the word or words which best describe your judgment. Please write as much as you wish for each open-ended question. Use the back of the page if necessary.

1. **Has the program had an influence on your child's attitude toward school?**

A very positive influence	a somewhat positive influence	no influence	a negative influence

2. **Does this program provide opportunities for your child to work with other children who have similar interests and abilities?**

Many opportunities	some opportunities	few opportunities	no opportunities

How important is it to have your child work with other children who have similar interests and abilities?

Very important	somewhat important	of little importance	not important

3. **Does this program provide opportunities for your child to develop new areas of interest?**

Many opportunities	some opportunities	few opportunities	no opportunities

How important is it for your child to develop new areas of interest as a result of participating in the program?

Very important	somewhat important	of little importance	not important

4. **Is your child enthusiastic about the program?**

Very enthusiastic	enthusiastic	mildly enthusiastic	not enthusiastic

5. **How has your child's self-confidence changed as a result of participating in the program?**

A large increase	somewhat of an increase	no change	a decrease

PLEASE TURN TO THE NEXT PAGE.

6. **How much information do you receive about your child's participation in the program?**

Too much information	enough information	not enough information	no information

7. **How challenging is the work in the program for your child?**

Very challenging	somewhat challenging	mildly challenging	not challenging

8. **How has this program changed your child's academic achievement?**

A large improvement	a small improvement	no improvement	achievement has dropped

9. **Do you think this program has been beneficial for your child? (Circle one) YES NO Why or why not?**

THANK YOU!

Please return in the envelope addressed to Dr. Marcia Delcourt, University of Virginia, 275 Ruffner Hall, 405 Emmet Street, Charlottesville, VA 22903.

September 13, 1991

Dear

Last year, staff members, students, and parents from your school participated in the Learning Outcomes Project, a two-year study conducted at the University of Virginia. We want you to know that **we really appreciate your assistance** with our research of different types of educational programs across the country.

At this point in our research, we are collecting information from teachers, parents, students, and administrators to find out about the similarities and differences among the programs for high ability students targeted by this study. The information gained from these surveys will help us determined how certain characteristics of programs relate to those programs' overall effectiveness. This information will, we hope, eventually help to provide maximally successful learning experiences for children. As always, all information we collect will be confidential and used only for our research purposes.

We appreciate your continued assistance in our efforts. Please complete the enclosed survey and return it to our offices within the next month. For your convenience, a self-addressed stamped enveloped has been included. Thank you.

Sincerely,

Marcia Delcourt
Principal Investigator

P.S. Unlike many of our other solicitations, we will only ask you to complete this survey once!

TEACHER SURVEY ABOUT THE _____ PROGRAM

DIRECTIONS- For each question which has options provided, please circle the word or words which best describe your judgment. Please write as much as you wish for each open-ended question. Use the back of the page if necessary.

1. **What influence does this program have on participating students' attitudes toward school?**

A positive influence on most	a positive influence on some	no noticeable influence	a negative influence on some

2. **Does the program provide opportunities for students to work with other students who have similar interests and abilities?**

Many opportunities	some opportunities	few opportunities	no opportunities

How important is it for students in this program to work with other students who have similar interests and abilities?

Very important	somewhat important	of little importance	not important

3. **Does this program provide opportunities for students to develop new areas of interest?**

Many opportunities	some opportunities	few opportunities	no opportunities

How important is it for students to develop new areas of interest as a result of participating in the program?

Very important	somewhat important	of little importance	not important

4. **Are students enthusiastic about the program?**

Most are enthusiastic	some are enthusiastic	few are enthusiastic	none are enthusiastic

5. **How has students' levels of self-confidence changed as a result of participating in the program?**

Most have increased	some have increased	no noticeable change	some have decreased

PLEASE TURN TO THE NEXT PAGE.

6. **Is the work in the program appropriately challenging for the students?**

Too challenging for most students	too challenging for some students	not challenging for some	not challenging for most

7. **How has this program changed students' academic achievement?**

Achievement raised for most	raised for some	no noticeable change	decreased for some

8. **Has this program been appropriate for students who have participated? (Circle one) YES NO Why or why not?**

9. **What effects have your program for high ability students had on students not in the program?**

THANK YOU!

Please return in the envelope addressed to Dr. Marcia Delcourt, University of Virginia, 275 Ruffner Hall, 405 Emmet Street, Charlottesville, VA 22903.

ADMINISTRATOR SURVEY ABOUT THE _____ PROGRAM

DIRECTIONS- For each question which has options provided, please circle the word or words which best describe your judgment. Please write as much as you wish for each open-ended question. Use the back of the page if necessary.

1. **What influence does this program have on participating students' attitudes toward school?**

Positive influence on most	positive influence on some	no noticeable influence	a negative influence on some

2. **Does the program provide opportunities for students to work with other students who have similar interests and abilities?**

Many opportunities	some opportunities	few opportunities	no opportunities

How important is it for students in this program to work with others who have similar interests and abilities?

Very important	somewhat important	of little importance	not important

3. **Does this program provide opportunities for students to develop new areas of interest?**

Many opportunities	some opportunities	few opportunities	no opportunities

How important is it for students to develop new areas of interest as a result of participating in the program?

Very important	somewhat important	of little importance	not important

4. **Are students enthusiastic about the program?**

All are enthusiastic	some are enthusiastic	few are enthusiastic	none are enthusiastic

5. **How has students' levels of self-confidence changed as a result of participating in the program?**

A majority have increased	no noticeable change	a majority have decreased	don't know

PLEASE TURN TO THE NEXT PAGE.

6. **Is the work in the program appropriately challenging for the students?**

Too challenging for most	too challenging for some	not challenging enough for some	not challenging for most

7. **How has this program changed students' academic achievement?**

Achievement raised for most	raised for some	no noticeable change	decreased for some

8. **Has this program been appropriate for students who have participated? (Circle one) YES NO Why or why not?**

9. **What effects have your program for high gifted students had on students not in the program?**

THANK YOU!

Please return in the envelope addressed to Dr. Marcia Delcourt, University of Virginia, 275 Ruffner Hall, 405 Emmet Street, Charlottesville, VA 22903.

September 13, 1991

Dear

Last year, staff members, students, and parents from your district participated in the Learning Outcomes Project, a two-year study conducted at the University of Virginia. We want you to know that **we really appreciate your assistance** with our research of different types of educational programs across the country.

At this point in our research, we are collecting information from teachers, parents, students, and administrators to find out about the similarities and differences among the programs for high ability students targeted by this study. We especially hope to hear from program coordinators, since people such as yourself have unique and valuable perspectives on the effectiveness and appropriateness of such programs in the larger educational community. The information gained from these surveys will help us determine how certain characteristics of programs relate to those programs' overall effectiveness. This information will, we hope, eventually help provide maximally successful learning experiences for children. As always, all information we collect will be confidential and used only for our research purposes.

We appreciate your continued assistance in our efforts. Please complete the enclosed survey and return it to our offices within the next month. For your convenience, a self-addressed stamped envelope has been included. Thank you!

Sincerely,

Marcia Delcourt
Principal Investigator

P.S. Unlike many of our other solicitations, we will only ask you to complete this survey once!

COORDINATOR SURVEY ABOUT THE _____ PROGRAM

DIRECTIONS- CIRCLE THE NUMBER WHICH BEST REPRESENTS YOUR OPINION.

1. How would you estimate the overall satisfaction of each of these groups/individuals regarding your programming for high ability students?

	1 (very satisfied)					6 (very dissatisfied)	Don't Know
Coordinator (YOU)	1	2	3	4	5	6	DK
Central office staff	1	2	3	4	5	6	DK
School board	1	2	3	4	5	6	DK
Community members	1	2	3	4	5	6	DK
Parents of students in the program	1	2	3	4	5	6	DK
Teachers of students in the program	1	2	3	4	5	6	DK
Students in the program	1	2	3	4	5	6	DK
Building principals	1	2	3	4	5	6	DK

PLEASE TURN TO THE NEXT PAGE.

DIRECTIONS- PLEASE WRITE RESPONSES TO THE FOLLOWING QUESTIONS. USE THE BACK OF THE PAGE IF NECESSARY.

2. **What do you think are some of the advantages and disadvantages of the type of program you provide for your high ability students?**

ADVANTAGES

DISADVANTAGES

3. **What are some of the challenges you face in continuing the development/refinement of your program for high ability students? Please be specific.**

Thank you!

Please return in the envelope addressed to : Dr. Marcia Delcourt, University of Virginia, 275 Ruffner Hall, 405 Emmet Street, Charlottesville, VA 22903.

Appendix E

District Contact Letter

March 3, 1992

Dear

Thank you for your willingness to allow me to observe in your classroom, interview a few students, and talk with you about the gifted program at the [name of school] School. I am writing to confirm the dates that were arranged for the visits, to provide you with information about this study, and to explain a form I would like to receive upon my arrival in your classroom. [name of contact], the program support teacher explained briefly to you that the University of Virginia site of The National Research Center on the Gifted and Talented (NRC/GT) is conducting a follow-up to the Learning Outcomes Study, a national study of academic and affective learning outcomes that has been taking place in your school for the past two years; however, you would probably appreciate additional information about this follow-up project.

Purpose of the Study

The Learning Outcomes Study is a two-year investigation of the academic and affective outcomes of elementary school children. We are comparing students in different types of programs (special school, special classes, pull-out programs, within class programs) by race/ethnic group and gender on measures of student achievement, attitudes toward learning, self-concept, self-motivation, and teacher ratings of learning, motivation, and creativity. Realizing that results from these factors may not reflect the full picture of program impact due to differences in program implementation at each site, we are conducting observations and interviews in selected sites to reveal other, more important, program characteristics associated with positive learning outcomes.

Overview of the Follow-up Research for the Learning Outcomes Study

This follow-up study will be conducted over three consecutive days. On **Monday, March 23** and **Tuesday, March 24**, I will be recording observations on students in your classroom. I will be recording information about the curricular activities experienced by students and the verbal interactions that occur in the classroom. I will use a tape recorder to assist with coding interactions that are lengthy, and therefore, difficult to code. On the third day, **Wednesday, March 25**, student interviews will be conducted. These observations and interviews will include students from your classroom and from a second grade classroom in your school. The following periods of time will be adjusted according to your school schedule:

Schedule- Day 1

Observe	Grade 3	8:00-9:30
Observe	Grade 4	9:30-11:00
Lunch		
Observe	Grade 3	11:30-1:00
Observe	Grade 4	1:00-2:30

Clarify activities with teachers

Schedule- Day 2

Observe	Grade 4	8:00-9:30
Observe	Grade 3	9:30-11:00
Lunch		
Observe	Grade 4	11:30-1:00
Observe	Grade 3	1:00-2:30

Clarify activities with teachers

Schedule- Day 3

Schedule 8 student interviews (4 in grade 3 and 4 in grade 4) according to the daily schedule
Schedule half-hour interviews with the teacher from grade 2 and the teacher from grade 3

As [name of contact] explained to you, I would like you to complete one form before I arrive in your classroom: a copy of your schedule of activities for each day of the observations. At the conclusion of each day of observations, I may have some follow-up questions about the day's activities. If your students receive instruction in a basic subject area from another teacher, I may want to ask that teacher a few questions at the end of the day.

On the third and final day of this project, I would like to schedule brief interviews of about 20 to 30 minutes each with four students from your class. I will select the students and an interview schedule can be developed at the end of day two. At the end of day three, I would also like to spend approximately one-half hour with you to inquire about the way that the gifted program is implemented in your school.

Please be assured that strict confidentiality will be maintained for the students, teachers, parents, and districts who participate in this study. All data will be coded and analyzed in reference to codes. Only the state in which the observation occurred will be identified in research reports. I will not be evaluating you or your students--this is not an evaluation study, rather it is a descriptive study. My observation notes will not be shared with anyone in your school district.

If you have any questions about these visits or the study, please call me at 804-982-2849. Thank you for your willingness to assist with this research project by completing the forms and allowing me to visit in your classroom.

Sincerely,

Marcia Delcourt, Ph.D.
Principal Investigator, NRC/GT

Appendix F

Key Features, Sources, and Timeline for Investigating the Research Questions for the Qualitative Extension of the Learning Outcomes Study

Key Features, Sources, and Timeline for Investigating the Research Questions for the Qualitative Extension of the Learning Outcomes Study

Sources	Key Features					
	Research Question #1	Research Question #2	Research Question #3	Research Question #4	Research Question #5	Research Question #6
Students	Questionnaire (Fall 1991), Interview (Spring 1992)			Questionnaire (Fall 1991), Interview and Observation (Spring 1992)	Motivation[a] and Self-Perception[b] Surveys (Fall 1990-Spring 1991), Interview and Observation (Spring 1992)	ITBS[c], Motivation, and Self-Perception Surveys (Fall 1990-Spring 1991), Interview and Observation (Spring 1992)
Regular Classroom Teachers	Interview (Spring 1992) Pull-Out and Within-Class Programs					

[a]Intrinsic Versus Extrinsic Orientation in the Classroom Scales (Harter, 1980), [b]Self-Perception Profiles for Children Scales (Harter, 1985), [c]Iowa Tests of Basic Skills (Hieronymus, Hoover, & Lindquist, 1986).

Key Features, Sources, and Timeline for Investigating the Research Questions for the Qualitative Extension of the Learning Outcomes Study (continued)

Sources	Key Features					
	Research Question #1	Research Question #2	Research Question #3	Research Question #4	Research Question #5	Research Question #6
Teachers of the Gifted	Questionnaire (Fall 1991), Interview (Spring 1992)			Questionnaire (Fall 1991), Interview and Observation (Spring 1992)	Interview and Observation (Spring 1992)	Questionnaire (Fall 1991), Interview and Observation (Spring 1992)
Coordinators for Gifted Programs	Questionnaire (Fall 1991)			Questionnaire (Fall 1991)		Questionnaire (Fall 1991)
Administrators	Questionnaire (Fall 1991)			Questionnaire (Fall 1991)		Questionnaire (Fall 1991)
Parents	Questionnaire (Fall 1991), Interview (Spring 1992)			Questionnaire (Fall 1991)		Questionnaire (Fall 1991)
Documents		Program Procedures (Fall 1991)	Program Procedures (Fall 1991)		Program Procedures to find about program evaluation (Fall 1991)	Program Procedures to look for intended outcomes (Fall 1991)

Research Monograph Series

The National Research Center on the Gifted and Talented
The University of Connecticut
362 Fairfield Road,U-7
Storrs, CT 06269-2007

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Also of Interest

Regular Classroom Practices With Gifted Students: Results of a National Survey of Classroom Teachers
Francis X. Archambault, Jr., et al.

An Observational Study of Instructional and Curricular Practices Used With Gifted and Talented Students in Regular Classrooms
Karen L. Westberg, et al.

Why Not Let High Ability Students Start School in January?
The Curriculum Compacting Study
Sally M. Reis, et al.

Evaluation of the Effects of Programming Arrangements on Student Learning Outcomes
Marcia A. B. Delcourt, et al.

NRC G/T

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